DOCUMENT RESUME

ED 353 800 FL 020 572

AUTHOR	Lee, In, Ed.; Schiefelbein, Scott, Ed.
TITLE	Studies in Native American Languages VI.
INSTITUTION	Kansas Univ., Lawrence. Linguistics Graduate Student Association.
PUB DATE	90
NOTE	170p.; For selected individual papers, see FL 020 573-579.
AVAILABLE FROM	Linguistic Graduate Student Association, University of Kansas, Dept. of Linguistics, Lawrence, KS 66045.
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Kansas Working Papers in Linguistics; v15 n2 1990
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	*American Indian Languages; Bilingual Education; Case (Grammar); Elementary Secondary Education; Language Classification; *Language Research; Literacy; Quechua; Spelling; *Structural Analysis (Linguistics); Uncommonly Taught Languages; Verbs
IDENTIFIERS	Chiwere; Clauses; Comanche (Language); Deixis; Ixil; Lakota (Language); Proto Algonquian

ABSTRACT

This serial is intended as a forum for the presentation, in print, of the latest original research by the faculty and students of the Department of Linguistics and other related departments at the University of Kansas. Papers are as follows: "Interpreting St. Clair's Comanche Texts: Objective Case Marking and 'Same Subject' Dependent Clauses" (James Armagost); "Reflexive and Reciprocal Elements in Ixil" (Glenn Ayre); "Native American Languages and Literacy: Issues of Orthography Choice and Bilingual Education" (Christina Biava); "Spatial Deixis in Chiwere" (Jill Hopkins); "The Historical-Comparative Classification of Colombian Inga (Quechua)" (Roger Parks); "Proto-Algonquian Verb Inflection" (Paul Proulix); and "A Supplementary Bibliography of Lakota Language and Linguistics (1887-1990)." (JL)

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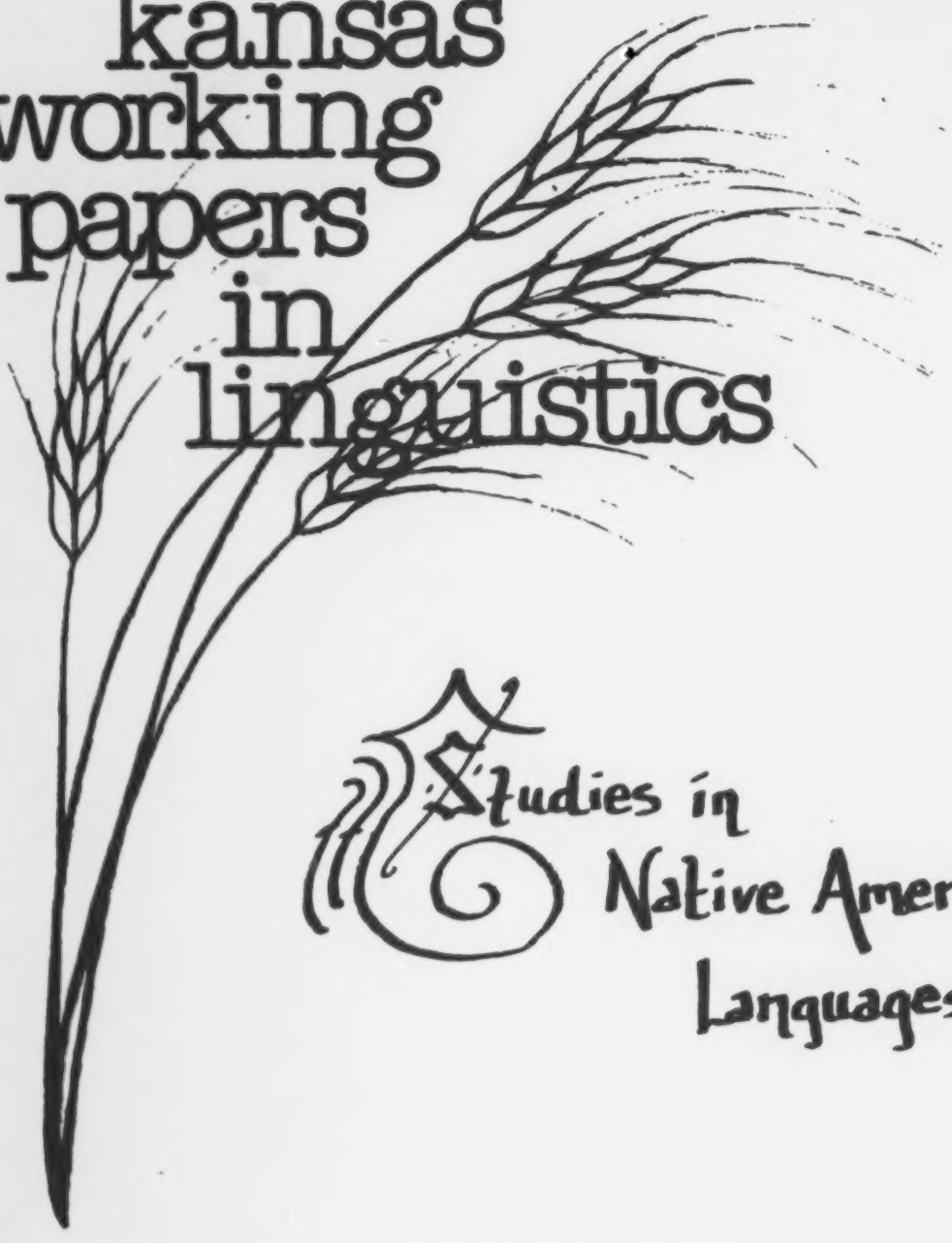

Studies in Native American Languages VI

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Volume 15
Number 2
1990

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Editors, KWPL
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Lawrence, KS 66045 USA

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The cost per issue for Volume 1 through 6 and Volume 8, Number 1 is US$4.50 postpaid. The cost for Volume 10, Number 1 and Volume 11 is US$7.50 postpaid. The cost for Volume 14, Number 2 is US$8.50. The cost for Volume 7, Volume 8, Number 1, Volume 9 and Volume 10, Number 2, Volumes 12 and 13, and Volume 14, Number 1 is US$10.00 postpaid. Reprints of individual articles may be requested for US$2.50 postpaid. For orders outside the United States and Canada, please add US$2.00 per volume to help defray the costs of postage (a cumulative index to volumes 1-14 is available upon request).

We would like to thank the faculty of the Linguistics Department and the Graduate Student Council for their continuing encouragement and support. We would also like to acknowledge the help of Sarah Schiefelbein, who helped design the cover for this volume.

Kansas Working Papers in Linguistics

edited by

In Lee
Scott Schiefelbein

Partial funding for this journal is provided by the
Graduate Student Council from the Student Activity Fee.

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Volume 15
Number 2
1990

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INTERPRETING ST. CLAIR'S COMANCHE TEXTS: Objective Case Marking and 'Same Subject' Dependent Clauses

James L. Armagost

Abstract: St. Clair's Comanche texts, collected in 1902, appear to exhibit a very uncharacteristic form of objective case marking along with 'same subject' dependent clause types unknown elsewhere in the language. Proper interpretation of the materials and the circumstances in which they were transcribed leads to an analysis in which turn-of-the-century Comanche was unremarkable, at least in the matters considered here.

Introduction

As a student under Boas, Harry Hull St. Clair collected nineteen Comanche texts while in Oklahoma Territory in 1902. His retranscription of original field notebooks comprises some 948 Comanche lines, with a roughly accurate interlinear English translation (St. Clair 1902). The texts vary greatly in length, the longest running 177 Comanche lines while the shortest is a mere eight. The subject matter is almost exclusively Coyote stories; in addition there is one personal reminiscence and one humorous story about losing a horse. At least three speakers contributed to the collection, but unfortunately the name of the person(s) responsible for half of the stories is not recorded. The breakdown is as follows: Uesi, one story; Esikona, three stories; Isakona, six stories; unattributed, nine stories.

These materials constitute the earliest examples of extended texts in Comanche. The fact that they were recorded by a student trained in phonetic transcription makes them even more valuable.[1] They contain much information on matters of phonology, morphology, syntax and discourse, both from a diachronic and from a synchronic perspective. In addition, St. Clair's experimental wax cylinder recordings are among the earliest attempts to use the phonograph in a field setting (Stocking 1974:460). These cylinders have been preserved and, once they become available to the

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1 Bara new nemewakait ōi na
well something wishing you I

2 naiomúiṫKatō nōmi bōṭwáṭi bōmiKwō ópait
am going to tell an Indian mustang hat has for its wife

3 umai mṫKwoit wihnuKṭ nenóṭta ṭoṕōet
will him himself went well long ago it old stole

4 Kṭ wáṭai umṫomōnit sunṭ maiKu wohoKwáṫK
not ever where another where Navajo they among after

5 wūhṭáu wūṭōpaiKu suKa Dwáṭai sṫKwahōn
surround them he has gone to woman eight

6 wōṭdō núKin wihnuṭ sṫKwot suKa bōmi-
he does not it them and while they

7 sewōṫKōniKaKu bōyaṕKwid bōmitaroṕKa
has her hat she does not when they know he lost

8 wihnu nuhKṭi hitōṭhō daúran sunúKwa
him the new he does it for Utah what

9 ha inaiō núKōn.
I you tell

Figure 1. The story attributed to Wesi
(line numbers added)

scholarly world, should provide information beyond that recorded in the manuscripts themselves.[2]

As an example of the overall appearance of the texts, Figure 1 shows the single very short story attributed to Uesi.[3] Although a few minor transcription questions remain, it can be seen that St. Clair's cursive form is quite easily read even if one has no great familiarity with Boasian notation. Superscripts, such as [U] in lines 4 and 7, represent voiceless vowels, a common feature of Comanche phonetics. Spaces between transcription clusters largely correspond to word or phrase boundaries. The fact that boundaries are recorded in this way suggests a relatively word-by-word dictation style by the narrator. This does not mean that each word is pronounced carefully or with clarity, i.e. so as to exhibit distinctions fully. But it is important because of a particular feature of Comanche pronunciation known as inorganic devoicing, by which a short unstressed prepausal vowel is optionally devoiced. At a relatively shallow level all Comanche words end in a glottal stop or a vowel (monophthong or diphthong). The number of consonants falling before a space in Figure 1 suggests the extent to which short final vowels are not recorded by St. Clair, either because he failed to perceive their voiceless quality or possibly because the speakers deleted rather than devoicing them.[4]

St. Clair's materials contain various cases of what appears to be syntactic oddity when compared both to what must have been the case before Comanche's recent separation from Wind River Shoshoni, and to what we know of the language in the period since the nineteen forties. If these cases cannot be explained in some satisfactory way, we are left with a very strange situation. The forms recorded by St. Clair would constitute, at worst, a set of changes by the language as a whole that were later completely reversed, or at best, a sort of branching out by a subset of speakers whose particular variety of the language has left no subsequent trace. That neither of these speculative histories actually took place follows from the interpretation of the text materials to be outlined here.

Objective Case Marking

Suffixes mark a number of distinctions in Comanche's nominal system, which includes nominative,

possessive and objective case and singular, dual and plural number. I will here focus on objective case marking, a summary of which is found in Table 1.[5] Gaps in the dual and plural portions of the table represent the fact that inanimate or even nonhuman nouns are often uninflected for number. When it does occur, on the model of the other dual and plural forms, it is a form of emphasis. Singular forms take one of five suffixes, including zero.[6] /-i/ and /-a/ mark the largest number of forms, with /-a/ predictable after stems ending in /h/ or /?/. As can be seen, /-i/ often coalesces with the stem final vowel or, in effect, replaces it; in some nouns it is simply added to the stem. /-hka/ is predictable for deictic elements, while /-hta/ occurs after the nominalizer /-pin/. A few nouns have no distinct objective singular form.

		singular	dual	plural
-i	t+e?t+ 'child'	t+e?ti	t+e?tihi	t+e?tii
	puku 'horse'	puki	pukunihi	pukunii
	mo?o 'hand'	mo?e		
	paa 'water'	pai/pae		
	woinu 'instrument'	woinui		
-a	?ahp+? 'father'	?ahp+?a	?ahp+?anihi	?ahp+?anii
	haicI 'friend'	haicIha	haicInihi	haicInii
-hka	su 'that (one)'	suhka	suhri	surii
-hta	huupi 'tree'	huupihta		
-ø	kahni 'house'	kahni		

Table 1. Nominal inflection: objective case

In (1) I give a number of examples in which the expected situation, as represented by Table 1, is actually found in the St. Clair texts. In these and subsequent examples the first line is a noncursive adaption that preserves much of the character of St. Clair's notation, while the second is a modern, relatively broad transcription consistent with that used for various Numic languages.

(1a) ẹ́hka bödöẹ́di
'?ehka p+'t+e?ti
'(those-OBJ) his children-OBJ'

(1b) nohíjadi wíhtúaβai!
'nohi? 'caati 'wihtuaβai?ɪ
'have a very good-OBJ kettle'[7]

(1c) saka ijápöa
'sahka 'ʔɪsapɨʔa
'that-OBJ Coyote-OBJ'

(1d) bökákoa
pɨ'kaku?a
'her grandmother-OBJ'

(1e) mayúyup harökaru!i
ma'yuyupɨha 'ɾɨhkaɾuʔI
'will eat his fat (ones)-OBJ'

(1f) ötömapa
ʔɨ'tɨmɨɨpɨha
'your trade-OBJ'[8]

(1g) suka sǫkoβíta
'suhka 'sokoβihta
'that-OBJ earth-OBJ'

(1h) döpíht-daná-noraíyaru!i
'tɨpihta 'nahnɨʔ 'ɾayaaɾuʔI
'I'll just carry a rock-OBJ'

The expected *-hka* marks the demonstratives in (1a,c,g), while (1a,b) have *-i*, (1c,d,e,f) have *-a*, and the final two examples have *-hta*. What makes the data in (1) worthy of comment is the fact that such forms are very infrequent in the texts. Their existence does show, however, that St. Clair's speakers had, at least in some minimal way, the singular objective pattern characteristic of Shoshoni and later Comanche. But this immediately raises the question of why such forms should occur so infrequently. One possible answer could be that for these speakers objective case marking is optional, though we will see that further data make this hypothesis highly unlikely.

For the large set of forms that fail to show the expected objective suffixes one can distinguish two general patterns, to which I now turn. Understanding these patterns leads to a solution to the problem posed above. Consider first the following objective phrase:

(2) wáhat cacát döhöyaní
?? 'wahaht 'cacaat 't+h+yanihi/'t+h+yanihI
?? 'two good horses-OBJ'

Here the noun shows the expected /-i/ suffix, as I have shown in the second line with two forms differing in optional vowel devoicing. What St. Clair evidently heard as stress is in fact the dual objective with intervocalic /h/ either very weakly articulated or deleted entirely. Some varieties of Comanche are very inconsistent on [h], whether intervocalically or before a consonant.

For the numeral and adjective in (2) we cannot say that objective case is simply unmarked (cp. [c'caati] in (1b)). As we saw above in reference to Figure 1, the lack of word final vowels on these forms is explainable in two ways: either St. Clair failed to perceive these as voiceless, or (less likely) the speakers deleted them entirely. In either case we can easily provide the following clarification of (2):

(3) wáhat cacát döhöyaní
'wahahtI 'cacaatI 't+h+yanihi/'t+h+yanihI
'two-OBJ good-OBJ horses-OBJ'

In (3) the first two words are grammatically singular. The adjective is reduplicated and dual number is marked only in the noun. Given the probable circumstance of repeated word-by-word dictation as St. Clair strove to retranscribe his first rough notations, this example then falls together with those of (1), once the effect of prepausal devoicing is taken into account.

Similarly explained examples are very frequent. Compare (4) with (1d).

(4) suka BE káku
'suhka β+'kaku?A
'(that-OBJ) her grandmother-OBJ'

However, given the abundance of such superficially unmarked forms one might entertain alternate accounts, for example the possibility that it is only the first nominal element in an objective phrase that is overtly marked. To the extent that word-by-word dictation with rather rampant prepausal devoicing is judged to be unlikely, such very frequent forms as the following

could be taken to argue for something like the suggested alternate hypothesis:

(5a) ika dǫ̌pö
?? 'ʔihka 't↓ehp↓?
?? 'this-OBJ child'

(5b) suka Bötǒkap
?? 'suhka β↓'t↓hkap↓
?? '(that-OBJ) his food'

(5c) wáhat kakánaBǒci
?? 'wahahtI 'kakanaβ↓↓ci?
?? 'two-OBJ poor (ones)-OBJ'

Two lines of evidence lead to a firm rejection of the alternate hypothesis in favor of the interpretation in (6) involving prepausal devoicing.

(6a) 'ʔihka 't↓ehp↓ʔA
'this-OBJ child-OBJ'

(6b) 'suhka β↓'t↓hkap↓hA
'(that-OBJ) his food-OBJ'

(6c) 'wahahtI 'kakanaβ↓↓ciʔA
'two-OBJ poor (ones)-OBJ'

First, all the above examples involve forms that select /-i/ or /-a/. We must ask the fate of forms marked for objective case in other ways. (7) gives an objective phrase containing 'earth', a typical noun subcategorized for the /-hta/ suffix (cp. (1g)).

(7) ik^{a} sokoBit
'ʔihkA 'sokoβihtA
'this-OBJ earth-OBJ'

The nominative form for 'earth' is ['sokoβi], which means that the only possible analysis for (7) is that given.[9]

The second reason for preferring the prepausal analysis is that forms such as that in (8) do occur, though with very low frequency. There is no question here that St. Clair heard the final voiceless vowel.

(8a) ĩ́hka nöhópi^{h}ta
'ʔihka nɬ'huupihtA
'(this-OBJ) my tree-OBJ'

(8b) bötú́k^{ʲ}
pɬ'tuhkI
'his flesh-OBJ'

For the forms in which an expected /-i/ or /-a/ is not recorded, the easiest overall account therefore claims that the suffix is present both morphologically and phonologically, and most likely phonetically as well even if this physical manifestation is largely obscured by devoicing.

The second general pattern that can be found in ostensibly objective forms that seem to lack overt case marking involves an implicit claim about biuniqueness made by St. Clair's notation. Consider the phrases in (9).

(9a) dö́pĩhtö
'tɬpihta
'rock-OBJ'

(9b) dáʂ́öwitö ʂ́kopaítö
'taacɬkʷiti 'ʔakopaitɬ
'has seven-OBJ tongues'[10]

St. Clair claims that the vowel is identical in the first and third syllables of (9a) and the second and fourth syllables of the first word in (9b). He also claims that both words in (9b) end in the same vowel. But in fact we know that the last vowel of (9a) is underlying /a/ since we are again dealing with the /-hta/ suffix.

What of the last vowel in the first word in (9b)? It cannot be /a/ since the nominalizer here is /-tɬn/, which should select the objective suffix /-i/. Is there any reason to believe that the transcribed [ö] could represent underlying /i/? It turns out that there are other very clear cases of just this, having nothing to do with inflectional suffixes. Consider the following:

(10a) nániókötu!!
'nani?ookitu?I
'will hold a council'

(10b) warööñ
'waɾɨ?ɨnU
'missed'

So if we take St. Clair's notation at face value, we have the following pattern of neutralization for certain occurences of unstressed vowels:

(11)

As far as I know this pattern is not found in any other record of Comanche, though some vocalic neutralization is well known from other sources in which, for example, /ɨ/ is often realized as [a], /u/ as [o], etc. Consider the following objective and nominative examples from St. Clair:

(12a) ẹhka ẓogopa wáẹ̣pö
'?ohka cukuhpɨ?A 'wa?ihpɨ?A
'that-OBJ old-OBJ woman-OBJ'

(12b) ẓogópa wáẹ̣pö
'cukuhpɨ? 'wa?ihpɨ?
'old woman'

(12) is again representative of the large number of forms in St. Clair in which, aside from overt marking on a possible deictic element, objective and nominative appear to be identical.

Many other instances of vowel neutralization are found in the texts. A few examples are given in (13).

(13a) ökáßekö
?ɨ'kaßehka
'killed you-OBJ' ([ɨ] from /a/)

(13b) ukudóhyön
'?ukɨhu 't‡hyenU
'sent there' ([ɨ] from /e/)

(13c) nohę́pönid
'nohihpɨnitɨ
'were playing' ([e] from /i/)

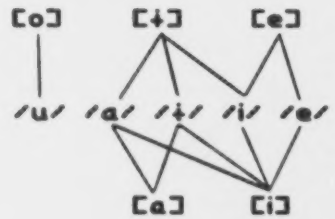
(13d) nayönį́d
'naʔyɨnetɨ
'were laughing' ([i] from /e/)

(13e) dúnęjin
'tunehcɨnU
'ran' ([i] from /ɨ/)

(13f) sömanǫ́ koßį́n
's ɨmɨnɨɨhkoßanU ([i] from /a/;
'broke himself up' [a] from /ɨ/)

Considering just the few examples in (9) through (13) then, which by no means exhaust the data, we have the following pattern:

(14)



My purpose here is not to question St. Clair's phonetic transcription, but rather to illustrate the unexpected relationships between the surface and deep phonological levels in his materials. Such wholesale violations of biuniqueness virtually guarantee the phonetic overlap of certain objective and nominative tokens, as in (12). Until one has grasped the nature and extent of this overlap, it is easy to think that St. Clair's speakers exhibited a hitherto unknown pattern of objective phrase inflection.

Same subject dependent clauses

Turning now to verbal inflection, I want to point out one difficulty in the pattern of dependent clause marking exhibited in St. Clair's texts. In certain dependent clauses Comanche marks whether the subject includes or excludes the subject of the next higher clause. The former case is marked by the so-called 'same subject' suffix /-(h)ci/ on the lower verb, as (15) illustrates.

(15a) uDóya çiyáke nókigwàit
ʔu'ɾoyaahci 'yakenuhkikʷʷaitɬ
'taking it, (he) ran off crying'

(15b) manákçi dóßonin
ma'nakɬci 'tɬßuninU
'hearing it, (she) awoke'

(15c) köaçi mĩanʰᵘ
'kɬahci 'miʔanU
'going out, (they) left'

(15d) daórçe súrsö ĩjapö
'taʔuɾɬci 'suɾɬsɬ 'ʔisapɬʔ
'meeting (him), Coyote (said)'

These examples are typical of the most common pattern in St. Clair, in which /-(h)ci/ marks an event prior to that named by the main verb. These dependent clauses contain background material, summarize and tie one or more events to another, etc.

The texts also contain a fair number of examples in which /-(h)ci/ appears to occur in totally unknown patterns. In (16), for example, this suffix seems to occur with /-ku/, one of the 'different subject' suffixes.

(16a) uBákarök^{u}çi
?? ʔu'ßaakaɾɬ-kU-ci
'where there was a waterhole'

(16b) ʃihakóĩhomĩak^{u}çi
?? 'cihakoolhumia-kU-ci
'are starving'

The semantic contradiction in the indicated analysis of (16) is so unlike what is known of both Shoshoni and Comanche that it simply cannot be correct.

Two additional perplexing examples are given in (17). Here /-(h)ci/ seems to cooccur with two aspect markers, the completive in (17a) and the progressive in (17b).

(17a) óXtu mánin ciwúnu umúwörĭan
?? '?ohtu mani-nU-ci 'wihnu ?u'muwɨɾianU
'crossed there, then spit it out'

(17b) sǫti nǫkimáR çibúnin
?? 'sooti 'nokima-ɾI-ci 'puninU
'saw many moving along'

At least for (17a), where a single participant is involved, one might propose an extension of the known Shoshoni-Comanche pattern. It could reasonably be argued that presence of completive /-nuh/ in such an example is an innovation in which the aspect marker is introduced into the dependent clause to emphatically mark the lack of temporal overlap in the two events. (17b) remains totally unaccounted for, however.

It turns out that all these problematic examples are explained if interpreted differently. None of them contain the same subject suffix /-(h)ci/ but another marker /sɨn/, which I provisionally gloss 'intensive'. This clitic can be translated in a number of ways indicative of its functional range. For example, in (18) it corresponds to English 'still' and in (19) to 'early'.

(18) '?omoma 'on foot'
'?omomɨsɨ 'still on foot'

(19) 'pɨecɨku '(in the) morning'
'pɨecɨkusɨ '(in the) early morning'

But /sɨn/ can also mark larger constituents. For example, some of St. Clair's speakers chunk discourse by marking the beginnings of paragraphs with /-sɨn/ in sentential second position.[11]

If one examines a number of tokens of /-sɨn/ in St. Clair's materials it becomes apparent that both the

consonant and the vowel are variously transcribed. Three possibilities beyond the examples directly above are shown in (20), where INT in the gloss indicates presence of this particle.

(20a) mayán sikániβẹtᵘ mayán
ma'yaanUs+ 'kahniβetU ma'yaanU
'took it INT, took it toward camp'

(20b) okᵘ βídöhc çi
'?okU 'βit+hcIs+
'arriving INT there'

(20c) uhánçⁱʂö döhüyarǫ́in
?u'hanIcis‡ 't+h+yaro?inU
'doing it INT, (he) got on horseback'

On the other hand, the same subject dependent clause marker /-(h)ci/ is itself variously transcribed. Consider the following examples:

(21a) suka bűniac daórçe
'suhka 'pohniacIhA 'ta?ur‡ci
'meeting that skunk'

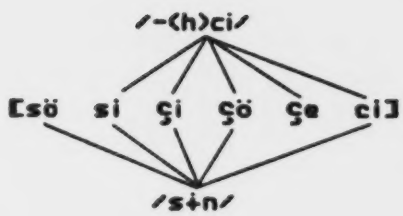
(21b) unímarci mían
?u'nimar‡ci 'mi?anU
'begging him, (he) left'

(21c) núhkçi bötöẹ́tö dáuran
'nukIci p+'t+e?ti 'ta?uranU
'running, (she) found her child'

(21d) sömö onúkwçö
's+me ?o'nilkʷIci
'having said that to him'

These and additional examples support an analysis in which the dependent clause marker /-(h)ci/ largely overlaps transcriptionally with the intensifier /-s+n/. Ignoring prepausal voiceless (or deleted) vowel data, we find at least the following St. Clair forms:

(22)



Returning now to a reconsideration of (16) and (17), in which /-(h)ci/ appears to occur in totally unknown patterns, we can see that the correct interpretation of St. Clair's notation is as follows:

(23a) uBákarók^{u}çi
ʔu'βaakaɾ+-kU-s+
'where there was a waterhole INT'

(23b) ç̄ihakóīhomī́ak^{u}çi
'cihakooihumia-kU-s+
'are starving INT'

(23c) óXtu mánin ciwúnu umúwörī́an
'ʔohtu 'mani-nU-s+ 'wihnu ʔu'muwɬɾianU
'crossed there INT, then spit it out'

(23d) sǫti nǫkimáR çibúnin
'sooti 'nokima-ɾI-s+ 'puninU
'saw many moving along INT'

The correctness of this interpretation is demonstrated not only by examples such as (20b,c), in which we find both /-(h)ci/ and /s+n/ in what is known to be a permitted sequence, but also by examples such as (24), which does not involve a dependent clause but merely /s+n/ posing as /-(h)ci/.

(24) nanönçi önánsutaikihinö[12]
'nahn+nɨ-s+ ʔ+'nanIsutaik+kin++
'we just INT came to worship you'

Conclusion

Not every occurence of St. Clair's [çi] is a manifestation of /-(h)ci/. Just as for the objective forms considered above, so also for the dependent clause and 'intensive' data must we contend with rather extensive transcriptional overlaps. Whether these texts

accurately reflect the various speakers' pronunciation cannot be determined at present. While the overlaps far exceed the limit that I am aware of for more recent Comanche, we cannot simply dismiss them by claiming that St. Clair had a bad ear. It can be hoped that eventual examination of copies of his cylinder recordings will allow resolution of this matter as well as the question whether the speakers deleted or merely devoiced various vowels.[13]

NOTES

1. Sources of information on early forms of Comanche are limited. They include several short vocabularies and records of common phrases written by English or Spanish speakers, such as Harston 1963 and Rejon 1866, and various official records of names, etc. As an example of the latter, see my comments on Thomas 1929 (Armagost in press).

2. The Federal Cylinder Project of the American Folklife Center, Library of Congress, is currently attempting to identify various recordings, of which St. Clair's Comanche materials are a part. Taped copies, it is hoped, will soon be available for study.

3. Slightly edited English translations for over half of St. Clair's texts appear in Louie 1909. See Canonge 1958 for later examples recorded from a speaker who was still a fairly young woman when St. Clair was in Oklahoma Territory.

4. St. Clair is known to have complained to Boas of difficulty in finding suitable speakers (T. Kavanagh and D. Shaul, personal communication). It is possible that those he worked with exhibited final consonants resulting from the increasing pervasiveness and prestige of English.

5. The focus on objective forms is prompted by two facts. First, there are very few possessive forms in the texts. Second, nonsingular possessives are identical to nominative forms, while possessive

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singular is distinctive only for a subset of nouns ending phonetically in [ɨ].

6. Comanche's phonemic system is as follows:

p	t	c		k	kʷ	ʔ
	s					h
m	n					
			y		w	
			i	ɨ	u	
			e	a	o	

To predict certain vowel qualities and occurences of [h] it is necessary to have an additional consonantal phoneme whose specific feature composition cannot be uniquely determined. This is not included in the few relevant citations given in this paper. Capitals in phonetic notation represent both optional, prepausal voiceless vowels and also so-called organic, or obligatory, voiceless vowels triggered by a following /s/ or /h/ (but not by [h] from another source).

7. 'Kettle' is not marked as an object since it is part of the compound 'to have a kettle'.

8. As a complement of /suwaai/ 'to want', this is technically a possessive form. Recall from footnote 5, however, that such a singular noun has identical objective and possessive forms.

9. It could be suggested that the suffix is instead the nominalizer /-tɨn/, in nominative form. But this suffix is impossible here since the absolutive /-pin/ is already present. (Absence of [h] is irrelevant to the argument given St. Clair's inconsistency in recording it.)

10. ['ʔekopai] 'to have tongue(s)'.

11. In Canonge 1958 paragraphs are regularly marked by the clitic particle /se?/ 'contrast', which plays this role only sporadically in the St. Clair texts. See lines 3, 4 and 6 of figure 1.

12. The h in St. Clair's ...*hi*... 'come' can only be interpreted as an erroneous retranscription of what must have been ...*ki*... in his notebook entry.

13. Realistically, of course, one should not expect too much of these old recordings. Filtering the signal for removal of unwanted surface noise before tapes are prepared for public distribution may force us to accept various matters as forever moot.

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REFLEXIVE AND RECIPROCAL ELEMENTS IN IXIL

Glenn Ayres

Abstract: Reflexives and reciprocals in Ixil, a Mayan language of Guatemala, appear to have features which distinguish them from reflexives surveyed in typological studies such as Faltz 1985 and Geniušiene 1987. Third person reflexives and reciprocals seem to have the form of a possessed noun optionally followed by a possessor NP. Moreover, reflexives occur only as direct objects, as subjects of copulative clauses, and in constructions derived from transitive verbs. Evidence for that analysis is presented, with a description of reflexives and reciprocal elements in Ixil.[1]

Introduction

Reflexives and reciprocals in Ixil, a Mayan language of Guatemala, (like cognate forms in Mayan languages generally) appear to have some unusual features which distinguish them from any of the reflexives described in typological studies such as Faltz 1985 and Geniušiene 1987. (See for example Geniušiene 1987:303, which presents a list of types of formal means of reflexive marking in a wide variety of languages, but not the formal means apparently employed in Ixil.) The aim of this paper is to document these features, in the context of a general description of reflexives and reciprocals in Ixil.

The reflexive or reciprocal element in may be readily identified in simple sentences with transitive verbs such as (1) (cf. the discussion of "primary reflexive strategy" in Faltz 1985):

(1) Kat q- il 0[2] q- ib' .[3]
Asp[4] 1pErg[5] see 3Abs[6] 1pErg Refl

"We saw ourselves/each other."

Kansas Working Papaers in Linguistics, 1990, Vol.15,No.2, PP. 18-44.

As indicated by the gloss, the sentence is ambiguous between a reflexive and a reciprocal interpretation (though for reasons extraneous to the discussion here, the reciprocal interpretation is favored).

Superficially, **qib'** in example (1) appears to be an unremarkable reflexive/reciprocal pronoun, of the sort found in many other languages. A complete list of Ixil reflexive/reciprocal elements is given in (2):

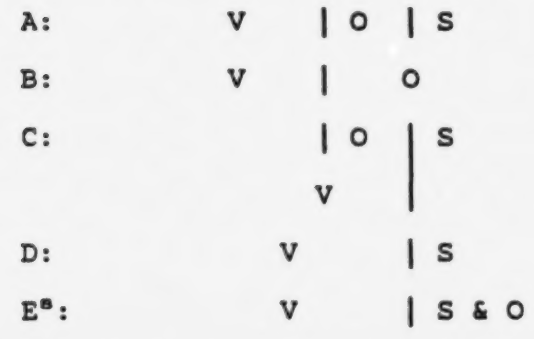
(2) Forms of the reflexive/reciprocal element

person	singular	plural
1	vib'	qib'
2	eeb'	etib'
3	tib'[7]	
indefinite	ib'	

Alternative Analyses of Reflexives

The constituent structure of examples such as (1) is not uncontroversial, and the source of the controversy may be brought out by considering a sentence in which the notional subject is specified, rather than understood as it is in (1). (Such subjects are necessarily third person.) The reflexive element may be regarded as on a par with the subject and verbal complex as a separate constituent of the clause; as forming a constituent together with the notional subject; or as being incorporated into or absorbed by the verbal complex, either retaining its identity as object, or ceding that role to the notional subject. These alternative lines of analysis are represented schematically in (3):

(3) Kat t- il tib' naj . "He saw himself."
Asp 3Erg see Refl he



Analysis A treats sentence (3) as having a structure consisting of a sequence of three constituents: the subject, the verb, and the direct object. This analysis, if correct, implies that reflexive sentences are unusual from the standpoint of Ixil grammar, since word order in the Nebaj dialect of Ixil ordinarily is strictly VSO and not VOS.[9]

Analysis B draws on the fact that the reflexive element **tib'** is structurally similar to a possessed noun, which can be optionally followed by its possessor, as in (4):

(4) t- amiigo naj "his friend, friend of his"
3Erg friend he

On this view, **tib' naj** is a constituent functioning as the direct object of the sentence, and the subject is understood implicitly.

Analysis C represents a third alternative: the object **tib'** might be cliticized onto the verb, forming a constituent with it. As indicated in the gloss of sentence (1), the position at the end of the verbal complex is where first or second person agreement with the direct object is marked by an absolutive marker, but in the third person there is no marker. It may be that the reflexive element occupies the position of the absolutive marker in the verbal complex. In the absence of other considerations of the sort to be discussed, this hypothesis seems very plausible, since the positions in which reflexive elements occur are very restricted, like clitics in other languages.[10]

Analysis D is meant to suggest that the reflexive cancels the object relation, yielding a structure which shares some similarities with C. Something along these lines might be what we would expect if Ixil has verbal reflexives, with a verb suffix rather than a clitic or independent nominal reflexive element. (Nevertheless, it seems implausible that the reflexive element could be a verb suffix, since it is morphologically complex and bears an agreement prefix, unlike suffixes in other languages.)

In analysis E, the number and configuration of constituents is the same as in D, but different claims are made about the grammatical function of **naj**, which simultaneously assumes two different functions: subject and object.

Although some linguists have suggested informally that reflexives in Mayan languages be analyzed in essentially the manner shown in A, to my knowledge no published references advocate such an account. However, analyses somewhat like B, C, D, and E have been proposed for other Mayan languages: Day 1973:74-5 and Craig 1976 & 1977 support an analysis like B for Jacaltec, and an analysis along the lines of C was developed by Furbee-Losee 1976 for Tojolabal. Aissen 1982 proposes for Tzotzil and other languages that in reflexive clauses the object relation is cancelled, as in D, and Berinstein 1985 argues that in reflexive clauses in K'ekchi, a single NP is both ergative and absolutive, or functions as subject and object at the same time. (Actually, Aissen and Berinstein state their positions quite different terms, and D and E might not do justice to their views.)

In Ixil a rather compelling argument can be given to show that analysis A is probably incorrect, based on the placement of the quotative particle **chi**. This particle may be approximately translated as "they say", and is used to indicate that the information in the clause is not direct knowledge of the speaker, but rather was told to him or her by others. As can be seen in examples (5) and (6), **chi** follows the first noun phrase representing either the subject or the object in the clause:

(5) Kat t- il ixoj chi naj .
Asp 3Erg see she Prt he

"She saw him, they say."

(6) Kat et- il ixoj chi .
2pErg

"You (plural) saw her, they say."

In sentences with reflexives, **chi** follows both the reflexive and the following subject/possessor, consistently with the other analyses:

(7) Kat t- il tib' naj chi t u ilomb'al .
Asp 3Erg see Refl he Prt in the mirror

"He saw himself in the mirror, they say."

The particle **chi** may not be inserted in (7) between **tib'** and the following noun phrase, which is the position where we would expect it if **tib'** by itself were the direct object, as analysis A suggests:

(8) *Kat til tib' chi naj tu ilomb'al .

In light of this fact, it is assumed in what follows that analysis A is not viable.

On analysis B, sentence (7) contains no explicit subject; **tib' naj** is the object, and **chi** follows it. According to C, D or E, **kat til tib'** is the verbal complex; **tib'** is a clitic or possibly a suffix, and at any rate is not a full-fledged object, so **chi** would be expected to come after **naj**.

Evidence which distinguishes between the other analyses is more equivocal. There are some suggestive facts to be found in the form of negation, omission of the subject, etc.

A very common way of negating a simple transitive clause is to move the object to the front, following the negative word **ye'l**. The same particle may not be used for the transitive subject. Nevertheless, **ye'l** is used with the notional subject in (9), as compared with (10) and (11):

(9) Ye'l naj kat til tib' .
not

"He did not see himself."

(10) *Ye'l naj kat til axh .
2sAbs

*("He did not see you (singular).")

(11) Ye'l naj kat til ixoj .
she

"She did not see him."

These facts do not count against analysis B, because ye'l can be used with a fronted possessor, as in sentence (12), and on analysis B, naj in (9) could be syntactically the possessor of tib':

(12) Ye'l u picheel kat tz'itq'u t- i' .
not the cup Asp chip 3Erg on

"The surface of the cup did not chip."

(The word t-i' is a relational noun: it has the form of a possessed noun, and usually serves to translate a preposition such as "on", but also has the meaning of "outside surface, shell, skin, etc.")

Similarly, on analysis D or E, the naj in (9) might behave like the subject of an intransitive verb. The word ye'l can also precede intransitive subjects, as in:

(13) Ye'l naj Xhun n- i- b'ix t- -uk'
not Cls John Asp 3Erg dance 3Erg with

ixoj Ma'l .
Cls Mary

"John is not dancing with Mary."

So the employment of ye'l in (9) is not incompatible with D or E.

On the other hand, analysis C does not seem to imply that the subject of (9) should behave like an in-

transitive subject. Consequently, these facts count against analysis C (and also, of course, against analysis A), since C (and A) leads one to expect **naj** in (9) to behave like a transitive subject, and some account of why it does not must be given. A proponent of C could perhaps maintain that despite appearances to the contrary, **naj** is not a transitive subject, or that it differs from other transitive subjects in some way which is critical for determining whether it may be used after **ye'l**. Since the possibility of such an explanation cannot be ruled out, the evidence is not conclusive.

It should be mentioned that in Ixil, there are several affixes which can be used with only transitive or only intransitive verbs, and generally the verb accompanied by the reflexive element is used with transitive rather than intransitive affixes. Consequently, the assumption that the clause becomes intransitive if reflexive cannot be made without cost, and analysis which suggests that a verb accompanied by a reflexive is transitive is to be preferred. Still, the assumption that the reflexive has the effect of intransitivizing the verb draws some support from universal considerations: for example, Faltz 1985:14 observes that "there is a clear connection between reflexivization and intransitivity."

There are other contexts as well where the supposed subject of a sentence with a reflexive pronoun fails to behave unequivocally like a transitive subject. For example, transitive subjects can typically be fronted for contrastive purposes, as in (14), with the ergative prefix eliminated and the suffix -(o/u)n added to the verb:

(14) Naj kuxh -e' kat il -on .
he just Dem Asp see Suf

"He just/only saw it, It was just/only he who saw it."

(See Ayres 1983 for further information about this construction.) Although informants' intuitions are not entirely clear, it seems that fronting **naj** is not completely grammatical if the suffix is used and the ergative prefix dropped:

(15) *?Naj kuxhe' kat ilon tib' .

If the verb were functioning like a normal transitive verb, it should have the form shown in (15) when the preposed subject bears the demonstrative suffix -e'. Compare:

(16) *Naj kuxhe' kat t- il -a .
3Erg Suf

(17) Naj kuxhe' kat til tib' .

"Only he saw himself."

(The suffix -a in (16) is a phrase-final suffix, and is not relevant to our present concerns.) Similarly, if the word jit "not" precedes the subject, the verb form ordinarily would have to be ilon, but that form is not used with the reflexive:

(18) Jit naj kat til tib' .
not

"It was not he who saw himself."

At the same time, informants agree that the form ilon may be used in certain constructions, like the idiomatic:

(19) Ixoj kuxhe' kat ilon tib' (s i- junal).
she (alone)

"She took care of herself alone [on giving birth]."

There are no significant structural differences between this last example and (15) above, and the existence of sentences like this prevent us from reaching any categorical conclusions.

In short, the facts considered offer some support for analysis B, D or E over C, but the evidence is not conclusive.

One fact which appears to favor C, D or E over B is that speakers avoid the omission of animate third person subjects, as in (20), usually strongly preferring[11] instead either to include a pronoun such as naj "he" as

the subject, or to use the passive, as in (21):

(20) %Kat t- il u kab'al -e' .
Asp 3Erg see the house Dem

("[3rd pers.] saw the house.")

(21) Kat il -ax u kab'ale' .
Pas

"The house was seen."

Since analysis B commits us to third person subject omission in reflexive sentences, it goes against this strong preference. Nevertheless, there are conditions under which a subject would normally be omitted if it is coreferential with another element in the sentence, amd on analysis B, the subject would be identical to the possessor of **tib'**. For that reason, the facts are again inconclusive.

The most decisive test that I have been able to devise for selecting one of these analyses over the other has to do with contexts in which it seems that there ought to be only one syntactic position which could be occupied by a reflexive, and no other position for a separate subject. If such positions exist, and **tib'** followed by a noun phrase can occupy them, that would favor B, according to which **tib'** plus the following NP can be a constituent, and count against C and D, which would presumably require separate argument positions corresponding to the subject NP and the clitic. The situation as regards E is less clear, as explained below. Consider, for example, sentence (22):

(22) Acha'v chit ixoj t- -e naj .
pretty always she 3Erg to he

"He likes her, She is attractive to him."

The predicate **acha'v** has only two syntactic positions associated with it, one of which is oblique, and those positions are occupied by **ixoj** and **naj** in this example.

Indeed, **acha'v** is never accompanied by more than one non-oblique noun or clitic. That is, unless the sequence **tib'** NP could be described in such terms: it is possible for **tib'** followed by a NP to occupy the

position of **ixoj**, as in (23):

(23) Acha'v chit tib' chajlab' (s t- -e -aj).
Refl they Prt 3Erg to Pl
| S ? |

"They like each other, They are attractive to each other."[12]

One way to explain this situation would be to take **tib' chajlab'** as a single constituent functioning as the subject, as analysis B might suggest. On the other hand, this counts against an analysis like C which requires that there be two argument positions associated with the verb, and against the idea that the reflexive has the effect of cancelling the object relation, as in D, since there is no object relation to be cancelled. If analysis E implies that **tib'** is just a marker to indicate that **chajlab'** has a double syntactic function in (23), where one of the functions occupies the absolutive position (subject of a copulative sentence) and the other is ergative, at least to the extent that there is an ergative prefix in **s teaj**, then it too is compatible with the data.

Moreover, we can show that in Ixil the reflexive/reciprocal element actually does occupy an argument position, at least sometimes. There are sentences in which it displaces the notional subject or object, which is shifted into an oblique case, marked by a relational noun such as **t-i'** "on", **vatz** "before", **t-uk'** "with", **t-e** "to", etc.

(24) N- i- tx'ak tib' unq'a xaak ti' ooro' .
Asp 3Erg win Refl the(pl.) boy at marble

"The boys are winning marbles from each other, (more literally but less accurately: The boys are winning/beating each other at marbles)."

(25) Nitx'ak tib' ooro' vatz unq'a xaake' .
before

"The boys are winning marbles from each other, (more literally: Marbles are winning each other before the boys)."

(26) Kat t- ava tib' ku- chikoj (s ku-
Asp 3Erg plant Refl 1pErg plants Prt 1pErg

vatz) .
before

"We plant our crops among ourselves (interchange of work)."

(27) Kat un- q'os vib' tuk' naj Xhun .
Asp 1sErg hit Refl with Cls John

"I fought with John, (more literally: I hit myself with John)."

The reflexive/reciprocal element displaces the notional object **ooro'** in (24) and **naj Xhun** in (27)[13]. In (25) and (26), the reflexive/reciprocal element forces the notional subjects (**unq'a xaak** "the boys" and **o'** "we" respectively) into an oblique case; this would presumably necessitate other adjustments in the argument structure as well, so that either a null subject or the notional object takes over the subject position, depending on the analysis one accepts. Of course, these facts only show that the reflexive/reciprocal element occupies an argument position in some sentences, but the simplest assumption, in the absence of evidence to the contrary, is that the same situation prevails in all sentences in which it occurs.

Similarly, in (28) **kolel** may be thought of as a participle or adjective derived from a transitive verb, and usually occurs with a subject only. However, it may be used with a reflexive/reciprocal element plus a following noun phrase:

(28) Kolel kuxh tib' naj .[14]
hidden just Refl he

"He is only hidden/hiding/put away."

If there is a second argument position, it must remain implicit, and may not be specified in the surface structure without an adverse effect on the grammaticality of the sentence. (However, **by**-phrases are grammatical in comparable nonreflexive sentences.) If **tib'** is a clitic (or suffix) and does not itself occupy an argument position, it is normally assumed that there must

be an empty position to which it corresponds, and with which it is coindexed. (See for example Borer 1981.) Here there appears to be no such position. Again, the facts are hard to reconcile with C or D, but are more compatible with B and and possibly E.

There are other examples which present more serious difficulties for analyses other than B. In nominalizations formed with the suffix **-b'al** (which often indicate the place where an action occurs), there may be a noun following the nominalization which corresponds to the direct object of the transitive verb. If instead of the direct object, a reflexive/reciprocal element is used, it is often personless:

(29) k'ul -b'al ib' "meeting place"
join where Refl

However, a personal form may also occur, and it may even be followed by a full noun (phrase), as in:

(30) k'ulb'al tib' b'aj "joint (between bones)"
Refl bone

On hypothesis B, **tib' b'aj**, which is the reflexive/reciprocal constituent and direct object, controls the implicit subject argument, and is understood to be coreferential with the subject of the transitive verb. In this case, **b'aj** is the possessor of **tib'**, since **tib'** must bear the third person ergative/possessive prefix **t-**. Compare the previous example.

On all of the analyses other than B, **b'aj** would have to be the subject. However, nominalizations with the suffix **-b'al** ordinarily do not permit a following subject, so examples of this kind count against them. (These nominalizations do occasionally permit a possessor which is understood as the subject, but in that case, there would be an ergative/possessive prefix at the beginning of this example.)

In light of these arguments, at this point analysis B seems to be the strongest, despite the fact that the grammatical structure it implies is unattested outside of Mayan languages.

Syntactic functions and uses of the reflexive/reciprocal element

Let us put these remarks in perspective by concluding with a general discussion of uses of the reflexive/reciprocal element and clause-internal coreference in Ixil.

The basic uses of the reflexive/reciprocal element are as the object of a transitive verb and as the subject of a copulative clause in which the predicate is a possessed noun.[15] Day 1973:74-5 in his grammar of Jacaltec observes that these two cases have something in common: the predicate (i.e. transitive verb or possessed noun) has two associated noun phrases, one of which shows agreement by means of an ergative (Erg) prefix and the other of which shows agreement by means of an absolutive (Abs) marker. The reflexive in both cases fills the position associated with absolutive agreement, the marker invariably being the null third person absolutive marker.

In addition to these basic uses, there are some derivative occurrences, mostly involving forms derived from transitive verbs. A list of the possible syntactic functions is given below, including both basic and derivative uses:

i. Transitive object

See examples (1), (3), etc.

ii. Subject (?) of a copulative clause in which the predicate is a possessed noun understood reciprocally

(31) Q- amiigo qib' .
1pErg friend Refl
| S? |

"We are friends (mutually/reciprocally)."

Note that in nonreflexive clauses, if the subject is o' "we", it normally appears at the beginning, as in (32). However, o' cannot grammatically appear at the beginning of (31), as can be seen in (33), indicating that o' is not the implicit subject of (31). The absence of an independent pronoun or absolutive marker in (31)

suggests a third person subject: o' is presumably the implicit possessor of amiigo, and qib', which as a noun should be third person for agreement purposes, must be the subject.

(32) O' t- amiigo naj .
we 3Erg friend he

"We are his friends/friends of his."

(33) *O' qamiigo qib' .

(34) I- koontra tib' u q'anb'o'lay -e' chi
3Erg enemy Refl the tiger Dem Prt
| S? |

tuk' u chee b'alam -e' .
with the lion Dem

"The tiger and the lion are enemies (of one another)."

iii. Subject (?) of an adjective understood reciprocally (rare)

See (23). There is an alternative version of that sentence with the same meaning, in which the adjective is treated as a noun, with a possessive prefix:

(35) t- acha'v chit tib' chajlab' .
3Erg

iv. Other uses with derived forms of transitive verbs

a. With an indefinite subject (ib')

The constructions in this section under 1 and 2 permit only the indefinite form ib', with no ergative (Erg) prefix indicating person. Perhaps we could say that the verb morphology satisfies or absorbs the subject position of the verb, and that the understood subject is understood to be coreferential with the reflexive. Here no such theory will be developed, however, and we restrict ourselves to a presentation of the facts.

1. infinitives

(36) q'osiib' "fight" < q'os + -o + ib'
hit Suf[16] Refl

k'uliib' "meet, join together"

< k'ul- + -u + ib'
meet Suf Refl

chusiib' "study, teach oneself"

mujiib' "hide (oneself)", etc.

(37) Q'osiib' kat un- b'an -a .
Asp 1sErg do Suf

"Fight [is what] I did."

2. agentive nouns in -(o/-u)l

(38) chus -u -l ib' "student"
teach Suf Suf Refl

3. nouns indicating location, etc., with the suffix -b'al

(39) kol -b'al ib' "hiding place"
keep where Refl

Cf. (40) chik -b'al xu'm "flower garden"
cultivate where flower

See also (29), discussed above.

The constructions under 3 also permit ib' with personal prefixes. See the next examples.

b. With personal prefix

1. nouns indicating location, etc., with the suffix -b'al

(41) il v- un- kolb'al vib' ile' .
see(?) the 1sErg Refl there

"There is my hiding place."

Compare (39). See also (30), discussed above.

2. participles

(42) Kolel te' kuxh tib' .
hidden always just Refl

"[3rd pers.] is always put away/hidden."

(43) Q'alumal chit tib' ixoj tuk' naj .
embraced always Refl she with he

"She and he are always embracing."

3. agentive nouns in -n(aal)

(44) Q'alun chit ve't tib' naj tuk' ixoj .
embracer always already Refl he with she

"Now he is always embracing (with) her."

Cf. (45) olin ch'ich' "[car] driver"
driver car,iron thing

4. passive voice (not all speakers, rare, and always reciprocal)

(46) ?*n- i- tx'ak -ax tib' ooro' ta'n
Asp 3Erg win Pas Refl marble by

unq'a xaak -e' .
the(pl.) boy Suf

"The boys are winning marbles from each other."

The grammaticality of this last example is debatable: some speakers accepted it while others did not, but no

one felt very comfortable about their judgements on it.

Identity of Reference within a Clause

Ignoring the unusual and derivative cases, we may say that the reflexive/reciprocal element is employed when there is identity of reference between the subject and object of a transitive verb, or between the possessor of a noun functioning predicatively in a copulative clause and the subject of that clause. The restrictive distribution of the reflexive/reciprocal element naturally raises the question of what happens in the case of identity of reference between other elements within the clause.

Reciprocity in Ixil is only understood if a reflexive/reciprocal element occurs explicitly in the clause. We have already seen that that element may displace other elements, and force them into an oblique case. The relevant examples are (24) through (27).

To express simple nonreciprocal identity of reference in other positions, a null pronoun is used, generally in conjunction with an Erg prefix on an associated word. The null pronoun follows its antecedent. For example, in (47), the subject of the sentence, **naj** "he", may be understood as coreferential with the third person possessor of **ixqel** "wife", and in (48), the subject **ixoj** "she" may be the antecedent of the t- of s te, which is also presumably followed by a null pronoun. In fact, in both cases the coreferential reading is favored, since an explicit (non-null) pronoun is preferred if there is no coreference with an antecedent within the clause.[17]

(47) Kat t- il naj u t- ixqel -e' .
Asp 3Erg see he the 3Erg wife Dem

"He saw his (own) wife."

(48) Kat i- tz'is ixoj ma'l u chik
Asp 3Erg sew she one the skirt

s t- e .[18]
Prt 3Erg to

"She sewed her(self) a skirt."

To dispel the impression that the antecedent must be the subject, consider also:

(49) v- i- tx'i' u naj kat i- q'os -a .
the 3Erg dog the man Asp 3Erg hit Suf

"The man hit his (own) dog, (more literally: The dog of the man$_i$ he$_i$ hit)."

In this example, the possessor of the direct object is the antecedent of the null pronoun presumably in subject position (i.e., after the verb). The salient point is that the antecedent is to the left of the position hypothetically occupied by the null pronoun.

The requirement that the explicit noun or pronoun must be to the left of a null pronoun disambiguates sentences like (50) to a certain extent. Moreover, for reasons which are not clear, a null pronoun in the transitive object position cannot be coreferential with an NP which is the possessor of the immediately adjacent subject.

(50) Kat t- il u t- ixqel naj -e' .
Asp 3Erg see the 3Erg wife he Dem

Nevertheless, there are several possible interpretations for this sentence[19].

(50a) Subject = u tixqel naje' "his$_i$ wife"
"His$_i$ wife saw [3rd pers.]$_j$/*him$_i$."

(50b) Subject = u tixqel; Object = naje'
"His$_i$ wife saw him$_j$/*him$_i$."

(50c) Subject = null; Object = u tixqel naje'
"[3rd pers.]$_i$ saw %his$_j$/*his$_i$ wife."

If the sentence is taken to have a null subject, as in (50c), the subject cannot then be taken to be coreferential with another NP in the sentence, since that interpretation would have a null pronoun with its antecedent following it. Some speakers do not accept this analysis of this sentence even with a non-correferential (his$_j$) interpretation, since it has a null subject with no explicit antecedent within the clause.

(Notice too that this is essentially the same structural configuration proposed here for reflexives; not surprisingly, the facts are different as regards coreference of the subject with the possessor of the object.)

Furthermore, there is no way for the sentence to be interpreted to mean that the husband is being seen by his wife: if **naje'** is taken to be part of the subject, as in (50a), then it violates the previously mentioned constraint against a null pronoun object being coreferential with the possessor of the adjacent subject, and if **naje'** is the direct object, then it follows the null pronoun possessor of **tixqel**, and again cannot be coreferential with it.

This raises the question of how one would say that the man$_i$'s wife saw him$_i$, and the answer is that the word order must be changed from the basic VSO order, as for example in:

(51) U tixqel naje' kat til -on .
Suf

"His$_i$ wife saw him$_i$/[3rd pers.]$_j$."

The verb of this sentence is understood transitively, and if there were an explicit direct object, it would follow the verb. The favored interpretation for this sentence is that the null direct object is coreferential with the possessor of the fronted subject.

And to avoid having a null pronoun in subject position, some speakers have a strong preference for (52) to express the meaning of (50c):

(52) Kat il -ax u tixqel naje' .
Pas

"His wife was seen."

In sum, for clause-internal coreference of the sort marked in some languages with reflexive pronouns, Ixil appears to be working toward a system which distinguishes between two cases. For coreference between a transitive subject and object, and between a copulative subject and possessor of a noun which may be the copulative predicate, reflexive pronouns are used. They

also occur in some derivative cases. On the other hand, when there is coreference between other elements in a clause, the antecedent occupies the first or leftmost position, and a null pronoun occurs in subsequent positions.[20] In most positions, an Erg agreement prefix (which also marks possession) must be used (whether with a null pronoun or an explicit NP), to show agreement with the verb or possession of a relational noun. Explicit (i.e. non-null) pronouns ordinarily have antecedents outside the clause. Like null pronouns and ordinary nouns, in most positions they must be used together with an Erg prefix.

Reciprocals are marked by reflexive pronouns in object position or in the position of subject of a copulative clause, regardless of their understood syntactic role, if necessary displacing the notional subject or object.

Needless to say, this system appears to be quite different, at least superficially, from what is found in most other languages. Whether it can be analyzed in a way which makes it look less unusual at a more abstract level remains to be seen.

NOTES

1. Data comes from the Nebaj dialect of Ixil, though there appears not to be significant dialectal variation as regards reflexives and reciprocals. All examples were kindly provided by Manuel López Santiago of Nebaj, or were checked by him. Thanks are also due to Pedro De Paz Pérez, Jacinto De Paz Pérez, Sebastián Caba of Chajul, and the Ixil team of the Proyecto Lingüístico Francisco Marroquín, all of whom helped me with my work on this topic and/or Ixil grammar in general.

The questions taken up in this paper were originally posed in Ayres 1980b. An earlier version was presented under the title "Pronombres Reflexivos, Recíprocos y Otros en el Ixil" at Taller Maya XI, Universidad Rafael Landívar, Quezaltenango Campus, Guatemala, June

21, 1989. I appreciate the supportive comments of participants in the workshop.

2. Where Abs = 0, it is not indicated after this example.

3. The alphabet employed is that adopted by the Academy of the Ixil Language. The letters have their expected phonetic values, with the following exceptions:

VV	=	long vowel
'	=	glottal stop when written after vowels, not written word-initially
b'	=	implosive bilabial stop, usually voiced
other C'	=	ejective consonant
ch	=	palatoalveolar affricate, as in English and Spanish
j	=	[h]
tx	=	voiceless retroflex affricate
tz	=	[c], voiceless alveolar affricate
v	=	sound with labiodental and bilabial allophones, ordinarily voiced, cognate with /w/ in other Mayan languages
x	=	voiceless retroflex fricative
xh	=	voiceless palatoalveolar fricative

4. The following abbreviations are used in the examples:

Asp	=	aspect or tense marker
Abs	=	absolutive marker (often called Set B in Mayan linguistics), with person and number (except that singular and plural are not distinguished in the third person)
Erg	=	ergative or possessive marker (called Set A in Mayan linguistics), with person (and number)
Refl	=	reflexive/reciprocal element
Dem	=	demonstrative suffix
V	=	verb or verb phrase
S	=	subject (of a copulative predicate or a transitive or intransitive verb)
O	=	direct object
Prt	=	particle
Suf	=	suffix
Pas	=	passive suffix
Cls	=	noun classifier, used before a noun (Most classifiers also function as pronouns, and are identical to nouns.)

5. The complete set of Erg (ergative) prefixes is:

	before a consonant	before a vowel
1s	un-	v-
2s	a-	a(v)-
3s&3p	i-	t-
1p	ku-	q-
2p	e-	et-

(The a(v)- prefix often fuses with the following vowel.) In addition to being used for verbal agreement (for transitive subjects and, in restricted circumstances, intransitive subjects), Erg markers serve as possessive prefixes. See example sentence (4).

6. The Abs (absolutive) clitics are identical to the first and second person independent pronouns:

1s	in	"I, me"
2s	axh	"you (singular)"
3s&3p	-	(no marker for third person)
1p	o'	"we, us"
2p	ex	"you (plural)"

The Abs markers are used for verbal agreement with the object of transitive verbs, the subject of intransitive verbs (in most circumstances), and the subject of some copulative predicates (i.e., participles, etc.).

7. There is no number distinction for reflexives in third person.

8. It has been suggested to me that mnemonic names for these analyses might be helpful. Let me propose the following:

A = the reflexive object hypothesis
B = the reflexive + possessor hypothesis
C = the reflexive clitic hypothesis
D = the verbal reflexive hypothesis
E = the multi-attachment hypothesis

Since some of these names may be misleading, they are not employed in the body of the paper.

9. According Nora England (personal communication), VOS is the basic word order of the Cotzal dialect of Ixil. I have no other information about word order in that dialect.

10. Presumably reflexive clitics will behave like pronominal clitics in many ways, if not all. According to Borer 1986:1-2, "many of the morpho-syntactic properties of pronominal clitics in a variety of languages are best captured if we assume that these clitics, on a par with affixes, are attached to their host by a morphological rule, the output being a word." In the same volume, Osvaldo Jaeggli (in Borer 1986:17) says of Spanish clitics, "The clitic will be considered a separate 'word' syntactically. However, as it is dominated by the same level node as the word it is affixed onto, it is considered also to be part of the verb."

11. An examination of texts shows that animate third person subject pronouns in main clauses are virtually never dropped, except under conditions described elsewhere in this paper, and where they are, it may be due to some unidentified syntactic trigger or a performance error.

12. The fact that **te naj** in the previous example is replaced by **s teaj** in this one is just what we would expect. Pronouns are not repeated if they have a coreferential antecedent within the clause, so there is no pronoun after **te** in this sentence; if the sentence were analyzed in terms of a theory with empty categories, there would be an empty category after **te**. When no explicit noun phrase follows **te**, the particle **s** precedes it. Plurality is optionally (but commonly) marked by the suffix **-aj**, as in this sentence.

13. This example is of interest because the grammatical antecedent of the reciprocal **vib'** "myself" must be "I", and differs from its notional antecedent, "I with John". Thus, a reciprocal in Ixil does not necessarily have a plural grammatical antecedent, despite suggestions to the contrary by prominent linguists, for example in Chomsky 1980:12, where it is asserted that "...the reciprocal requires a plural antecedent...." In Chomsky's terms, we must conclude that Ixil deviates from "core grammar", and does not represent the "unmarked case", which are not implausible conclusions.

It is not clear that present theories of the relation between syntactic and logical form, especially within a GB framework, allow for the realignment of coindexing which this sentence appears to exemplify, so that the reciprocal can be analyzed as having a plural antecedent at the level of logical form, since such a realignment would seem to entail the creation of a coordinate structure in the logical form.

Zribi-Hertz (1989:697) conjectures that one way in which anaphors (reflexives and reciprocals) differ from ordinary pronouns is that only ordinary pronouns may have split antecedents whose two components bear two distinct θ-roles. Her examples are:

a. $John_i$ spoke to $Mary_j$ about $them_{ij}$.

b. ?*$John_i$ spoke to $Mary_j$ about $themselves_{ij}$.

Unless it can be shown that the components of the split antecedent in the Ixil sentences do not have distinct θ-roles, Zribi-Hertz's test to distinguish pronouns and anaphors is not universally valid.

14. This sort of example, which occurs very frequently in texts, shows that the construction is not restricted to examples in which **tib'** signals reciprocity.

15. In these restrictions, Ixil reflexives are unusual. Faltz 1985:63 maintains that, as a general principle, "[i]f the primary reflexive in a language is morphologically obviously of the NP type [i.e., "a special pronoun is used as the object NP to signal its coreference with the subject" - p. 15], and if that language has prepositional phrases, then the reflexive may appear in some of them to mark coreference (at least) with the subject." Ixil has just one preposition, **t(u)**, which is not used with pronouns or reflexives, and relational nouns (explained elsewhere in this paper), which serve the function of prepositions, and which also never have reflexives as their objects/possessors.

16. In the Nebaj dialect, the **-o** or **-u** suffix assimilates to the following vowel, but its presence is evident from the vowel length. The vowel occurs with consonant-initial direct objects, and in the Chajul dialect, there is no assimilation. Incidentally, the suf-

fix -(o/u)l in the following examples should probably be analyzed as being composed of this same suffix -u (if the vowel of the root is u) or -o (elsewhere), plus a suffix -l.

Intransitive infinitives are generally formed with a suffix -chil, and not with -o or -u, so the existence of these forms counts against analysis D, if D is taken to imply that the verb becomes intransitive.

17. The requirement that there be an explicit pronoun is not absolute. The picture is muddied by the fact that there is no neutral pronoun to refer to ordinary inanimate objects (except with respect or disrespect, which may not be appropriate), and in such cases, a null pronoun is possible.

18. This example is actually slightly unnatural. Wherever possible, it is preferred to express a dative or benefactive meaning as the possessor of the direct object, rather than with **s te** or a similar oblique construction:

Kat itz'is ixoj ma'l w- i- chik .
the 3Erg

It remains true that the fact that there is no explicit pronoun after **chik** favors a coreferential reading between the subject and the person to whom the skirt belongs or for whom it is made.

19. Similar facts are reported for other Mayan languages in Larsen (1980) and Larsen and Norman (1979).

20. Although the constituency of some examples is not clear, it does not appear to be necessary or even possible to use a variant of c-command rather than simple linear order to specify structural relations of antecedents relative to coreferential null pronouns.

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NATIVE AMERICAN LANGUAGES AND LITERACY:
Issues of Orthography Choice and Bilingual Education

Christina Biava

Abstract: Native American language communities have had four choices regarding the adoption or change of a writing system in recent years: to adopt or not to adopt a system, or in the case of an existing system, to alter it or not to alter it. Also examined are criteria of orthography choice and functions of literacy. Bilingual education issues are seen as the most important function of Native language literacies. Also examined are problems that face Native language literacy programs.

The study of Native American languages has played a major role in the development of American linguistics over the past century. Many of the most eminent scholars, such as Leonard Bloomfield and Edward Sapir, did some work in a Native American language. Most of these studies were descriptive studies involving the cataloguing of the phonological, lexical, and morphological systems of various Native American languages (Leap 1981b:610).

These languages have not been well studied, though, in higher-level aspects of language such as discourse and literacy. This is understandable to some extent since these linguistic areas have only been examined in the past twenty years or so. Ironically, though, the need to study Native American languages in the context of literacy is much more crucial than these earlier descriptive studies in a way. This is because literacy relates to educational issues, thus directly affecting the daily lives of thousands of Native American children, and so the future of their communities, their languages, and themselves.

The most important issues involved in the study of Native American language literacy have been two-fold. First, the tribes have been faced with the decision of whether or not to adopt an orthography (or change an existing one). Secondly, if an orthography is adopted, the question arises as to whether literacy in the Native language should be the focus of the literacy education of the children and, to some extent, of the adults. These are the two issues this paper will address.

Before looking at the question of orthography, though, an important aspect of Native American languages to address is their diversity. Specifically, there are more than 200 languages spoken today; these belong to twenty language families. According to U.S. Census figures for 1973, 32% of all Indians have a Native mother tongue (242,967 of 760,572). This percentage is higher for Indians living on reservations, as 123,255 of 211,843.(or 58%) of those have a Native

Kansas Working Papers in Linguistics, 1990, Vol.15,No.2, pp. 45-59.

language as their first language (Leap 1981a:126-27). Some languages, though, have few speakers while other languages have many speakers. Navajo, for instance, has more speakers than all the other Native languages combined. Thus, some languages are believed to be closer to extinction than others.

Not only is there great linguistic diversity among the tribes, but there is also cultural diversity. Cultural diversity will involve values within the tribe as well as between the tribe and other groups, especially the dominant white culture. Both of these aspects of cultural diversity will be directly related to Native literacy education. For instance, tribal values and attitudes toward their language will determine whether or not an orthography will be adopted in the first place. The interaction between a tribe and the dominant white culture will affect what uses and functions literacy will be used for.

It is therefore important to point out that cultural as well as linguistic diversity is great among tribes. As a result, no single situation regarding the questions posed earlier will be appropriate for all tribes. As each tribe has unique needs, approaches to orthography choice and bilingual education must be unique also.

A brief look at the history of Native American education and the U.S. government will be helpful in understanding issues of bilingual education today. Young (1977:459) describes how the official goal of the U.S. government for over a century (1819-1929) was to stamp out Native languages and cultures 'as a prelude to assimilation.' In 1926-28 the Institute for Government Research appointed a committee to investigate the status of Native American life. The Meriam Survey was the result of this investigation. It stated that federal Indian policy must change if reservation living conditions were to be improved, and that changes would only come about with 'the direct involvement of the Indian communities themselves in defining local needs' (p.459).

This attitude lasted until the 1940s when, given the Cold War attitude of Americans after World War II, assimilation became the word again in all of American education, and as a result, only literacy in English was tolerated. Then, with the Civil Rights Movement of the 1960s for Black Americans, Native Americans also pressed for more control over their educational process; this was reflected in the 1972 Indian Self-Determination and Educational Assistance Act which allowed tribal authorities, not the Bureau of Indian Affairs, to make decisions about their own curriculum, materials, etc. (Leap 1981b:10-11).

All of these historical events interacted with individual tribes in unique ways, depending on the tribe's own situation (e.g., location in the U.S., historical acceptance of while culture, cultural values, number of Native language speakers, etc). Thus, with the resurgence of Native American pride in the late 1960s and early 1970s, not all tribes were in the same situation regarding their language.

Four choices can be seen for the various tribes in regard to the basic issue of orthography choice. First, if a tribe had an existing orthography, they were faced with the decision of whether to keep it or

to change it to something closer to a roman alphabet. Second, if a tribe did not have an orthograhy, it could choose to adopt one or to resist having their language written. All four choices are present in Native American tribes.

The first choice, to keep an existing orthography, has two aspects to it. That is, the existing orthography may already be in roman letters and thus not need any change. In this situation, the system is either left intact or perhaps several variations are standardized. A good example of this is the Navajo orthography which was developed in the early 1900s by various missionary groups and standardized by the U.S. government in 1937 (Young 1977:460-65). Since the 1972 Self-Determination Act, then, the Navajo Nation has not had to deal with the orthographic issue. Instead, they have been able to devote their energies to other issues, such as developing reading materials and literacy programs. Partly as a result of this advantageous position, Navajo has the most native speakers of all U.S. Indian languages and is the only Native American language adapted to a typewriter keyboard.

The second aspect of keeping an existing orthography is when a language has an orthography that is not at all close to the English alphabet. In this case, the tribe is faced with the decision of keeping a very different orthography or adopting a new one. Like many other languages, Cherokee adopted a syllabic writing system in the early 19th century. Unlike other tribes who had their syllabary developed by a European (usually a missionary), the Cherokee syllabary was developed by the illiterate Cherokee Sequoyah, who was monolingual in Cherokee (Walker 1969:149). Although many of the letters in his syllabary resemble upper-case roman letters, they have very different phonemic values. Probably because the syllabary was developed by a Cherokee--an event that Walker calls 'one of the most remarkable intellectual tours de force in American history' (p.150)--Cherokees 'have an emotional attachment to the orthography' (p.153) and have always resisted changes to it.

The next option regarding orthography choice is when an established system is rejected in favor of one closer to the roman alphabet. The syllabic systems used for the Cree and Ojibwa languages of Canada reflect this situation somewhat. The syllabary used for many Canadian Native languages was developed by the Methodist minister James Evan in 1840 for Cree; it was subsequently adapted to other Native languages of Canada. This system is very different from a roman system, being based as it is on shapes such as pyramids and triangles. According to Burnaby and Anthony (1985:107), syllabic systems 'are regarded as a tangible symbol of "Indianness" and as such have a social value.' Thus, like Cherokee, there is considerable psychological attachment to this long-established script. On the other hand, most of the material written in the syllabary is liturgical; only a small amount of materials exist for teaching reading to children, for instance (p.107).

Therefore, in addition to this syllabary, alphabetic systems have been developed for Cree (Burnaby & Anthony 1985:107) such as one by Ellis in 1975. The purposes of developing this were three-fold. First,

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as already mentioned, few teaching materials existed in the syllabary. Second, reading research has indicated that either type of system, since both are phonemic, are best for initial literacy training. Third, the issue of transfer of reading skills (to either French or English) would indeed be easier from a Native roman script than from a Native syllabic system, although Burnaby & Anthony point out that the 'risk of confusion of the two systems will be much greater' with using a similar roman script (p.123). Thus, since the roman system appears to have a slight advantage over the traditional syllabary, most Cree children who are taught literacy in their Native language today are taught in the roman script. A similar development has taken place among the Ojibwa Indians of northwestern Ontario. Todd (1972:359) notes that the adoption of an alphabetic system 'has met with general approval' there.

What about languages that had no script until recently? Their options were to either adopt a script or to resist adopting one. To the Western mind that cannot imagine the absence of a written language, this choice might seem obvious, but this is not so; a number of tribes have resisted adopting an orthography. To understand this, it is helpful to examine a common attitude held by many tribes toward the power of the spoken word.

In her 1981 article 'Native American Attitudes toward Literacy and Recording in the Southwest,' Brandt (1981:186) describes in detail the 'historical and contemporary aversion to writing and other relatively permanent means of data storage' held by several southwestern U.S. tribes such as the Pueblo Indians. This aversion is based on the belief that since speech is an immediate act, it represents life and is therefore imbued with 'the creative power of thought.' Writing, on the other hand, is considered 'static,' 'dead and dry . . .[It is] violence against the spirit.' The Pueblos, for instance, 'believe that their identity and sense of security is bound up with their exclusive control over their languages and cultures and they fear giving up that control to outsiders' (Leap 1981b:84).

Another aspect of this aversion to written expression is that Native Americans have come to blame it for the poor memories of whites who 'must write everything down.' Furthermore, because of this need to write, whites cannot pay much attention to their surroundings. 'The reliance on writing is believed to interfere with attention, thus interrupting listening, seeing, and understanding with the heart.' It also causes a 'tendency to reduce the complexity of sensory input only to those minimal features easily jotted down' (Brandt 1981:187).

The Pueblo Indians of New Mexico are a good example of a tribe that has successfully resisted adopting an orthography because of their 'complex of secrecy' (p.190). Furthermore, they have discovered that such a move has helped them maintain their own cultural identity because of the control they can maintain over young adults in their community. As Brandt (1981:190) says:

> Pueblo college students are often forbidden by tribal officials to read ethnographies and linguistic studies of their own communities. They are often frustrated by these

> prohibitions and by the lack of material on their communities, but these choices by tribal leaders have the effect of pulling young people back to the community, to their elders to gain information. They are rarely permitted to write or record material if they do enter into a learning relationship with someone in their own community. They may find it difficult to establish a proper social relationship, find no teacher, or chafe at the demands of the relationship. All of these behaviors are clearly relevant to the opposition to writing and other more permanent forms of recording; they underlie this opposition.

Even among tribes that do have an orthography such as the Papagos in Arizona, this aversion to writing is believed to be one of the reasons why literacy has not caught on. The Papago, for instance, have had an orthography for their language since 1900, yet literacy in the Native language has never been at all widespread. Bahr (1975:332) states that the Papago, like other tribes of the Southwest, have a 'fear that written texts will automatically be "scattered out among the whites and other tribes."' As a result, most writing since 1900 has been in English to fill functions originating outside the tribes.

The final option regarding orthography choice concerns a community that does not have its language written and chooses to adopt one. This has been a common occurence among Native American tribes during the past twenty or thirty years as Native American pride has experienced a renaissance, and some form of literacy teaching in many Native languages has been newly allowed.

This situation gives rise to two situations. The first possibility is that the proposed orthography can be successful and find acceptance by the Native speakers. This has been the case with the Zuni Indians. A roman orthography was prepared by Curtis Cook of the Summer Institute of Linguistics in 1967. He did some testing of the orthography among Native speakers who were literate in English to find out their preferences for spelling Zuni words; this helped make his orthography popular among them. He then put together a reader and some other materials and found 'an unexpected amount of native interest' (Walker 1969:163-64).

The unsuccessful situation can be seen in Buesing and Walker's 1967 development of a writing system for Passamaquoddy, an Algonkian language of eastern Maine. In writing of the failure of this orthography to catch on, Walker himself points out some of the problems with the script. First, a single letter such as 'b' would stand for both voiced/voiceless varieties even though the distinction exists in Passamaquoddy. Walker notes that although 'Native speakers of all ages showed considerable interest in this system, . . . [they] failed to become literate' (Walker 1969:164). The Native speakers, mostly literate in English, complained of the difficulty of applying the voiced/voiceless rule and also of using a 'v' to represent the vowel ' 'Clearly,' writes Walker, 'the adults who were literate in English found the writing system too different from conventional English spelling' (p.164).

This last point illustrates another aspect of adopting an orthography. When an orthography is being considered, what are the criteria that it must fulfill in order to be adopted? For instance, as just noted, the Passamaquoddy system failed due to the fact that many Passamaquoddy speakers were already literate in English. This, therefore, brings up the issue of transfer of literacy skills from one language to another. Mainly, transfer is concerned with such a basic issue as choice of orthography; we have just seen problems with this. One point to keep in mind is that transfer can work both ways--from Native language literacy to standard language literacy or the other way around. In the first case, transfer will especially be important when discussing and arguing for Native language literacy as the first literacy in a bilingual education situation. Since eventual literacy in the national language--French, English, or Spanish in most cases--is always a part of any bilingual education program, the ease of transferability from the Native language will often determine whether or not Native language literacy will even be allowed as the first literacy. This was one of the prime concerns in the cases of adopting a roman alphabet for Cree and Ojibwa, as already discussed (Burnaby & Anthony 1985:105).

The second situation--transfer from English literacy to Native language literacy--is illustrated by the Passamaquoddy situation. This will be the case when an orthography is presented to adult (rather than children) Native speakers who are already literate in the national language, such as English.

Other criteria besides transfer exists. One of these is that the orthography must be 'mechanically suited for the language' (Venezky 1977:37). This refers to the fact that some languages are better suited to an alphabetic system while others to a syllabic one. Yoruba is one language ill-served by an alphabetic transcription. Walker (1969:162-63) quotes Jahn (1961:188): 'What expense, what trouble, how many auxiliary marks are necessary in order even to write a name such as Lakiko Orokulabebeja. We can see from the orthography how inadequate an alphabetic script is for rendering this language.'

Venezky further elaborates on various aspects of what makes an orthography suitable by mentioning the often-given ideal of a one-letter, one-sound system. However, maintaining this ideal is realistically not do-able, as writing is a visual system and not a spoken system. Thus, this ideal will constantly be deviated from in several ways. The most basic is that morphemes must be identifiable visually from one word to another, even if the morphemes are not pronounced the same due to phonological rules. Another problem with the one-letter, one-sound idea that is crucial in Native American languages is dialectal variety. Since variety will exist and since standardization is usually necessary for the survival of an orthography, some compromises to this rule must be made (Venezky 1977:47).

According to Venezky (1977:46), though, the most crucial criteria concern which phonemic distinctions should be represented in the orthography. He points out that all major segmental units should be given representation, whereas contrasts of low functional load shouldn't

be. Passamaquoddy was an example of a system failing due to inadequate representation of crucial distinctions (voiced/voiceless). The opposite case seems common also, as when linguists 'overdesign' a system, 'confus[ing] reading with phonemic transcription' (p.46).

An example of this occurred with Otomi, a Native language of Mexico, which had its older, rarely used, orthography revised by the linguist H. Russell Bernard in the early 1970s with the help of Jesus Salinas, a native Otomi speaker. The original orthography was 'considered cumbersome' by native speakers, especially since it marked tone. Bernard (1980:134) remarks:

> Although tone is clearly phonemic in Otomi, . . . it proves unnecessary and cumbersome for Otomies to mark tone in their own language. We do not mark stress in English although foreigners wish we would.

As a result, the revised orthography does not mark tone, even though the linguists' desire would be to do so. This system works fine 'so long as the reader is an Otomi and not a North American or Mestizo academic' (p.134).

Besides linguists and nonnative speakers learning to read a language, another group to benefit from having all phonemic contrasts marked are Native speaking children learning to read. Venezky (1977:47) notes that there is little evidence, however, that children learn to read faster with a more detailed writing system. He points out that although children may be able to connect letters to sounds quicker if they are using a highly phonemic system, 'this is not in itself reading' (p.47) He makes the observation that cross-cultural studies of children acquiring literacy show that 'a significant percentage of children in all countries will be classed as remedial readers, and within this group most will come from lower socioeconomic environments' (p.47). The irregularity of a writing system--i.e., the deviation from the one-letter, one-sound ideal--will not be the key issue.

In sum, the criteria that an orthography should meet are how well literacy skills can transfer either into or out of the system with regard to literacy in a national language, how well the system actually 'fits' the language it represents, and how it represents phonomic distinctions in that language. Both too much detail and too little detail can cause an orthography to not be accepted by Native speakers. Finally, the ideal of one-letter, one-sound was discussed; deviation from this ideal should be expected, so it cannot be an absolute criteria for an orthography.

As already mentioned in this paper, the fact that an orthography may exist for a Native language is no guarantee that it will be used. As just suggested in the discussion of criteria above, one reason an orthography may or may not catch on has something directly to do with the orthography. That is, it may be too detailed (Otomi) or not detailed enough (Passamaquoddy) or dialects may vary too much and a standard not exist yet.

However, even with a reasonably good, standardized orthography, Native language literacy may not catch on. This leads to the crucial idea of functions of literacy. In their article on the sociolinguistics of literacy acceptance, Spolsky & Irvine (1982:74) argue that literacy in the Native language will flourish only if there exist functions for Native language literacy separate from functions for the national language such as English. To illustrate their point of view, these researchers give an example of where Native language literacy did catch on (Cherokee) and where it did not (Navajo).

As already mentioned, Cherokee literacy had its beginning with the remarkable development of a Native syllabary by Sequoyah in 1819. Equally remarkable as this development by an illiterate monolingual was the fact that, through Sequoyah's efforts, the system was immediately accepted, 90% of the western Cherokees becoming literate within the next decade (Spolsky & Irvine 1982:74). This was directly related to several factors. First, since Sequoyah was a Cherokee, the development of the orthography was purely an internal achievement. Second, the syllabary fit the language quite well, having taken Sequoyah twelve years to perfect. Finally, and most relevant to the discussion here, is that functions existed immediately for literacy in Cherokee. Of course, it must be noted that at that time, most Cherokees were monolingual and English literacy was virtually unheard of among any Native Americans. Thus, none of the functions for literacy were being filled by English literacy yet.

Walker (1969:150) describes the functions that Cherokee immediately filled:

> People wrote letters, kept accounts, and copied the sacred songs and curing formulas. A weekly newspaper called The Cherokee Phoenix was printed by a Cherokee national press as early as 1828. . . . Between 1828 and 1835 the press of New Echota, the Cherokee capital, also issued a number of portions of the Bible, copies of the laws passed by the National Council, various political pamphlets, 4 editions of a Cherokee Hymn Book, temperance tracts, and religious documents.

After the 1837 forced move of the Cherokees to present-day Oklahoma by the U.S. government, this prodigious rate of reading and writing continued (Walker 1969:150 citing White 1962:511-12):

> Between 1835 and 1861, this press printed 13,980,000 pages of books, tracts pamphlets, and passages from the Bible. . . . An annual Almanac was published for many years in English and Cherokee. The Cherokee Messenger, a bi-monthly religious magazine, was printed, as well as numerous tracts, primers, spelling books, arithmetics, Bible passages, a complete New Testament, hymn books, and other miscellaneous publications. The Constitution and laws of the Cherokee Nation were printed in various editions. Resolutions of the National Council were printed and promptly circulated among the people.

Thus, it is clear that functions in many aspects of life--religion, medicine, law, history, and everyday--were immediately available for Cherokee literacy to fill.

Present-day Cherokee literacy has fallen, though, as the functions have somewhat been taken over by English language literacy. Only two bona fide functions remain, participation in religious activities and the practice of Cherokee medicine, both important to Cherokees, especially adults over the age of thirty. A final function of contemporary Cherokee literacy is associated with status in the Native community, since knowledge (which equals literacy) is necessary for 'the full acceptance of an individual as a mature and responsible member of the Cherokee community' (Walker 1969:151).

Since many modern-day functions of literacy have been taken over by English (especially as the Cherokee Nation was dissolved with the admission of Oklahoma to the Union in 1906) and since the three functions of Cherokee literacy--religion, medicine, and knowledge--are not concerns of the young, Cherokees often do not become literate in their native language until full adulthood. Walker (1969:151) notes, then, that data that shows that most Cherokees who are literate in Cherokee are over thirty years old is misleading; Cherokee literacy is not necessarily declining but rather follows a different pattern of acquisition (1969:151).

Spolsky & Irvine (1982) then examine the case of Navajo. They note that although literacy in Navajo was introduced early in this century and the various orthographies standardized in 1937, 'there was no "rush to literacy" among the Navajos' (p.74, citing Young 1977). These authors feel this was partly due to the lack of functions that Navajo literacy was needed for:

> Navajo is spoken not just in the homes in the community, but is appropriate for contact with the government bureaucracy . . . , for legal proceedings, for governmental activities at the chapter and tribal level, and for local radio broadcasts. On the other hand, English is used for reading and writing in almost all situations: All forms and reports filled out in. . . BIA and tribal government offices are in English, records of law cases are kept in English, and minutes of chapter-house meetings of the tribal council are written in English. The tribal newspaper is in English, and local radio broadcasting includes many English programs, for which Navajo radio announcers use English scripts. . . . Essentially, then, the situation can be characterized as a kind of diglossia: Navajo is the preferred and appropriate language for oral use, and English the most frequently used language for writing. (Spolsky & Irvine 1982:74-75)

These authors also mention that when literacy was introduced to the Navajo Nation, it was linked not to Navajo culture but rather to aspects of the encroachment of Anglo culture: Christian missionaries, U.S. government policies such as military service and livestock reduction

programs, and now transitional bilingual programs for Navajo-speaking children (p.76).

A similar situation exists with the Papago Indians of Arizona, whose orthography, introduced by the Anglo linguist W.I. McGee with the help of a Papago, Jose Lewis Brennan, has been rarely used. The only writing in the period between 1900 and 1960 in Papago was by several linguistically-trained Papagos using a 'highly complex phonetic alphabet.' The bulk of the Papagos, though, did their writing in English and 'felt no particular need to write in Papago' (Bahr 1975:319). The culture is an oral culture; writing needs seemed to be well-filled by English. As with Pueblo Indians to a large extent and Navajos to a lesser extent, a type of diglossia seems to have evolved, with many spoken functions handled in the Native language and the written functions in English.

One function that Bahr (1975) states as present in Papago culture is to preserve the old culture, writing down 'songs and stories so they won't be lost.' However, even this important function is being replaced by the tape recorder, and in a better way at that. Bahr (p.323-25) then describes two functions that he believes Papago literacy should fulfill, legal Papago in order to deal with U.S. government legalese, and popular Papago such as comic books in order to appeal to the younger members of the community. Whether or not these functions will be thus filled is to be found in the future.

Thus, lack of tribal functions for Native language literacy can be seen as one reason for lack of use of a Native writing system. On the other hand, as more and more schools serving the Native American population are experimenting with some aspect of bilingual education, Native language literacy is being taken into the educational system.

As with other minority groups in this country, the extent to which the group's vernacular or minority language should be used in the education of the young has been a hotly debated issue over the years. From an assimilationist attitude that has existed at least since the 1930s in the U.S., the attitude has changed as more and more groups are concerned over the disappearance of their language and the erosion of their culture. Many feel that Native language literacy will 'reinvigorate' a Native language, as in the case of Montagnais in eastern Quebec and southwestern Labrador, where the young people now speak a mixed language of Montagnais and either French or English, depending on which of the two provinces their community lies in. Adults there feel that 'universal literacy in Montagnais is the surest way of allowing that language to compete with the country's powerful official languages' (Mailhot 1985:21).

Regarding Native language literacy, Leap (1981b:47) reports the findings of a study that showed 'the overwhelming majority of Indian students and parents have positive feelings about their tribal language and culture.' The issue is not clear-cut: that is, minority language groups are not simply saying that they want their children to be schooled in their Native language to the exclusion of the national

language. This, in fact, is never the case, although different tribes have very different attitudes and goals.

Rather, the debate ranges between two types of bilingual education programs which Engle (1975:2) terms the Native Language Approach and the Direct Method. The words 'approach' and 'method' refer to the fact that the ultimate goal of both programs is national language literacy. In the first approach, initial literacy is in the Native language and it is used as the medium of instruction for other academic subjects. The national language is then introduced, first as an 'oral subject in structured and ordered forms.' Later, literacy in the national language is introduced and eventually this language becomes the medium of instruction.

In the Direct Method, the Native language is not used at all. Therefore, the national language is immediately introduced orally and is used as the language of instruction for other subjects. When the oral language has been reasonably learned, literacy is introduced. The Native language is never used, not even as a subject of instruction (Engle 1975:2). Most bilingual education programs fall somewhere between these two extremes. For instance, a direct method may include the Native language being taught as a subject.

The pros and cons of the two approaches can be classified into two areas, cognitive (academic) and psychological. Most emphasis until recently has been put on the cognitive repurcussions of allowing initial schooling to take place in the vernacular. Educationally-concerned people, especially outside the minority community, say they worry about how well the transfer of literacy skills will actually take place when the time comes. In other words, will national language literacy suffer because initial literacy was in a Native language? Another concern is whether knowledge in other subjects will suffer as a result of being taught in a Native language. Research has mostly shown these worries to be unfounded, as they are definitely offset by accomplishments in the psychological area. That is, children who are initially schooled in their Native language have reason to be proud of their cultural heritage and so do better in all aspects of education. According to Leap (1981b:46), research indicates that 'the development of the Indian students' Indian language skills is crucial to his/her psychological well-being and cognitive development.'

This is not to say that the Native Language Approach is not beset with difficulties, because if it were not, why wouldn't Native language literacy be more widespread in the 10-15 years it has been allowed to flourish? We have already examined some of the cognitive concerns that non-Native educators and even Native parents express over the education of their Native-speaking children. In addition to these cognitive concerns are other issues that need to be considered in the Native literacy issue. Engle (1975:26) gives a list of other variables which can affect the success of a bilingual education program that wants to promote Native literacy:

1. The linguistic relationship between the two languages;

2. The functions of the two languages in the broader community, and the possible uses of literacy in each language;

3. The cultural context of learning in the community;

4. The relationship of the two ethnolinguistic groups in the larger society;

5. The initial linguistic status of the child;

6. The period of the child's development in which the second language is introduced;

7. Instructional methods and materials used;

8. The ethnic group membership of the teacher;

9. The training and linguistic knowledge of the teacher;

10. The length of time necessary to observe an effect;

11. The specific subject matter under consideration;

12. The appropriateness of the assessment devices for both languages.

Leap (1981b) also explores why Native literacy programs may not necessarily succeed. Some of the reasons he gives, like Engle's variables, are clearly outside the cognitive or emotional realm, having to do with aspects of teacher training, program design, and program funding and implementation:

1. The rate of personnel turnover is high. There is pressure to hire highly skilled Native Americans in BE programs, and therefore these individuals are in great demand. They can get good-paying positions, and as a result, move from program to program, rarely staying wih a program long enough to really have an effect.

2. Teachers are often not well-trained and have no role model to follow. Few colleges have any sort of teacher-training program that deals with the problems that a Native language program will have.

3. Funding comes from various sources, so it can be difficult to figure out who is responsible for what.

4. The U.S. government's language policy is seen as arbitrary, as it changes its mind every few years, or so it seems to Native adults. They are therefore cautious about embracing something so immense as Native language literacy when they know from experience that the funding may be cut off in a couple of years.

5. Poor teaching materials exist in the Native language. Often there are no curriculum guides, or good reading materials. These are related to some of the linguistic problems below.

   a. There may be more than one Native language in the classroom.

   b. The Native language may not be 'well-suited' to the classroom environment (no words for 'blackboard,' etc.).

   c. Many languages have no established orthography; dialectal differences are hung on to by many groups who therefore oppose compromising in favor of a standard orthography.

   d. No dictionaries or grammars exist of the language.

   e. Little is know about Indian language sentence formation, which is necessary in order to develop a 'properly sequenced language arts curriculum' (Leap 1981b:84-93).

This paper dealt with aspects of the adoption or change of a writing system by Native American language communities. Four basic options were examined. Also examined were the criteria for the adoption and successful use of a system, especially as related to functions that Native language literacy can fulfill. Of those functions, the one that is most important is bilingual education. Many tribes have struggled to get their language into the classroom at least as a subject but preferably as the medium of instruction in the early grades. Even with such an implementation, the struggle that these people face is enormous. Problems exist not only in the linguistic arena, but also in crucial areas such as teacher training, materials development, curriculum design, and program funding. Although it is unlikely that bilingual education will keep all Native languages from imminent extinction, hopefully it has at least slowed the process for some languges and completely halted the process for others. Only future research into the issue of Native language literacy will show to what extent the languages are still viable, both in the spoken and written mode.

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SPATIAL DEIXIS IN CHIWERE

Jill D. Hopkins

Abstract: This paper examines spatial deixis in Chiwere (Siouan) in the framework of two theories of deixis. Denny (1978) attempts to define a set of distinctive features for spatial deixis, while Rauh (1983) uses spatial deixis as a template for organizing all deictic dimensions. Chiwere data suggest language and dimension specific expansion of both theories to include the features vertitive vs. non-vertitive and location/stationary vs. direction/motion.

The phenomenon of deixis presents theorists with one of the most challenging areas of cross-language investigation. Although there is no single comprehensive theory of deixis at present, this paper examines two provocative perspectives on the topic in light of data from Chiwere (Siouan).

Denny's Approach

The first of these theories is a distinctive feature framework for spatial deixis developed by Denny (1978) as shown in Figure 1. He compares the spatial adverbials of 3 languages, English, Kikúyu (Bantu) and Eskimo, which have seemingly very different deictic systems, and he develops a feature hierarchy that accomodates all of these languages. English has the minimal system possible with (1) the primary contrast between 'here' (speaker's location) and 'there' (all other locations. Both Kikúyu and Eskimo add the following features:

(2) Extended vs. non-extended. This means a stretch or area of space as opposed to a particular spot in space. A house would be classified as non-extended while a field or river might be extended. The distinction can apply to both speaker's and other locations.

(3) In field vs. out of field. This typically refers to those locations in the 'there' category which can be seen or pointed to, in contrast with indefinite or

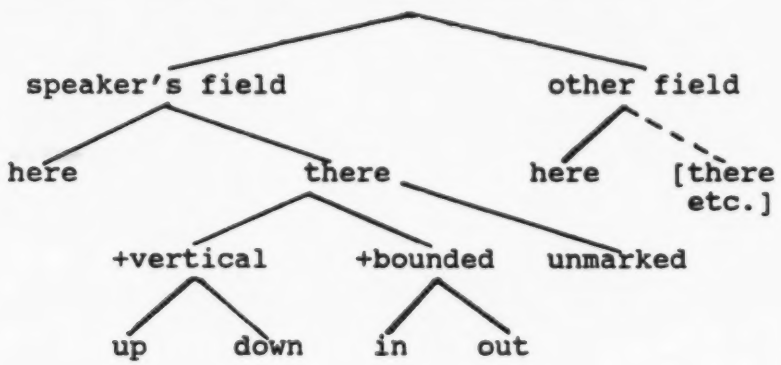
Kansas Working Papers in Linguistics, 1990, Vol.15,No.2, pp. 60-72.

unspecified locations (e.g. 'that place where X happens' vs. 'wherever X happens').

(4) Speaker-centered deictic field vs. other-centered deictic field. This distinction is between the normal ego-centered use of deictic terms and those with a different orientation as center, especially addressee's location or previously mentioned locations (Denny 1978:72-73). The latter case is prevalent in discourse, where a speaker may refer back to a location established earlier with the implication of being centered in that place, rather than in the situation of utterance.

Finally, Eskimo adds two more features to 'there' not present in Kikúyu and English, thereby delimiting five locations through distinct roots, including (5) verticality ('up there' vs. 'down there'), and (6) boundedness ('in there' vs. 'out there'), with (7) an 'over there' as the unmarked category for unbounded locations in the horizontal plane. The following case endings may also be added to these locative roots: locative (at), source (from), goal (to), and path (via) (Denny 1978:74).

In Eskimo, a prefix marking the 'other' centered deictic field may be added to all forms, so that the 'other' field is as fully differentiated as the egocentric one, unlike Kikúyu, which has only one undifferentiated 'other' field (Denny 1978:75).



locative
nonext.
extended
[3 other cases]

Figure 1: Spatial Deictic Feature Hierarchy (Denny 1978:76).

Schmid and Rauh Theory

A more comprehensive approach is presented by Rauh (1983), who expands work by Schmid (1972, 1983). Rauh begins by adopting Bühler's (1934:102) egocentric localistic base for deixis, with the origo or zero point of the indexical field rooted in the speaker (the ego), and the place and time of the utterance (Rauh 1983:24). However, while Bühler deals separately with each dimension, Rauh advocates an approach called deictic determination. Unlike Denny's feature system which is limited to spatial deixis, deictic determination is an alternative to language and dimension-specific deixis said to underlie all deictic dimensions due to the egocentric and localistic nature of language (Rauh 1983:12).

As shown in Figure 2, the criteria for deixis are: a) point of orientation, b) in connection with point of orientation, and c) not in connection with point of orientation (Rauh 1983:16). Languages may further segment these distinctions in particular ways, but at least these three criteria are believed to be necessary for universal deictic description.

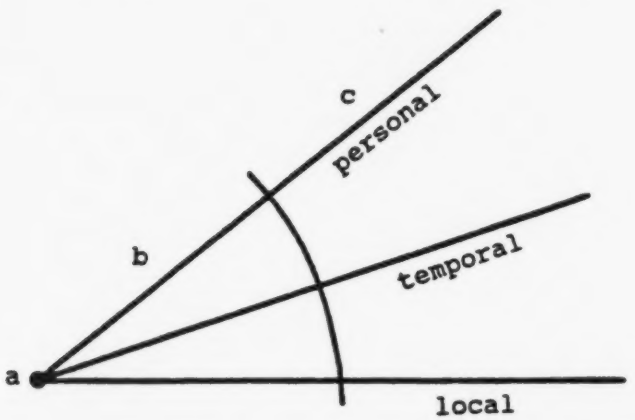


Figure 2: Deictic Dimensions: a) point of orientation; b) related to (a); c) not in contact with (a) (Rauh 1983:19).

Schmid (1983:67) uses these principles to develop a four-feature system of deictic dimensions: a) topic a; b) direct relation to (a); c) domain of (a b); and d) determination in (c). The combination of these features (both positive and negative) results in six

categories which Schmid and Rauh propose as the general, perhaps universal potential of deictic categories (Rauh 1983:20):

D_1: [+ a, - b, - c, - d] 1st person 'I'
D_2: [- a, + b, - c, - d] 2nd person 'you, you-all'
D_3: [- a, - b, + c, + d] 1st p. inclusive 'we (all of us)'
D_4: [- a, - b, + c, - d] 1st p. exclusive 'we (some of us)'
D_5: [- a, - b, - c, + d] 3rd p. 'he/she/it/they' proximate
D_6: [- a, - b, - c, - d] 3rd p. obviate

It is difficult to illustrate these categories in terms of the English system of deixis, which is relatively impoverished in the distinctions made. A rough approximation using the pronominal system will perhaps illustrate its potential. Since the speaker is the origo or point of orientation, those categories with either +a or +c will represent the first person forms, while +b stands for second person, and those categories with -a, -b, and -c are the third person forms. The variable d allows for language or dimension specific subclassification, such as position of addressee, degrees of distance (Rauh 1983:19-21), inclusivity, and proximate (3rd person form used for person near the center of attention) and obviate (any subsidiary animate 3rd person which may come into the discourse). The latter two distinctions are found in Algonquian (Hockett 1965:234). While four dimensions may not suffice in all cases, items which are fully described by such features make up the core of deictic expressions, and subcategorization features may be added for residual terms (Rauh 1983:27-28).

Introduction to Chiwere

Historically, the Siouan language Chiwere was comprised of three dialects, the Ioway, Otoe, and Missouria. However, the Missouria tribe merged with the Otoe at the end of the eighteenth century, and the separate Missouria dialect is considered extinct. The two tribes, the Ioway and the Otoe-Missouria, were relocated to Oklahoma in the late 1880's, and the few fluent speakers alive today live in the area between Red Rock and Shawnee, Oklahoma. (Approximately 10 Otoe-Missouria and 6 to 10 Ioway are fluent; they range in age from mid-sixties to mid-nineties.)

The sources of data include several weeks of

original fieldwork conducted in 1988, plus the work of earlier scholars, including Dorsey (1880), Marsh (n.d.), Whitman (1947), Robinson (1972), and Taylor (1976).

Spatial Deixis in Chiwere

This paper centers on a description of spatial deixis in Chiwere, the presumed "base" of deictic determination by Rauh and Schmid. The core of spatial deixis in Chiwere as presented in Table 1 consists of a set of morphemes, primarily demonstratives, which may combine with suffixes denoting location or direction.

The demonstratives include ǰe 'this/these [here]', ga/go 'that/those [there]', and góši 'that one [there]'. Hári means 'far'.

The locational suffixes -gi 'in the vicinity of 1st person', -da 'at' (Whitman 1947:240) or 'location', and the directional suffix -gu 'motion toward' may be added to these demonstratives and other morphemes to specify location, especially proximity to/distance from the speaker, and direction of movement.

In vicinity of:		location/ stationary	or direction/ motion
1st p.	ǰe	-gi	
2nd p.	se[1]	-da	
1 & 2 p.	i-	-gi, -da	
next to 1 & 2	ga i góši	-da	-gu*
far from 1 & 2	hári		

*-gu as 'far from 1 & 2 p.' is unattested.

Table 2:
Spatial Deixis in Chiwere.

Both ǰégi and ígi are translated as 'here', and séda and ída are sometimes translated 'here', sometimes 'there'. Gaída and góšida are glossed as 'over there', while hárida is glossed as 'over yonder'. Hárida is not necessarily within the visual field, and position or activity (standing, walking, etc.) may be unknown or indefinite.

This analysis presents some problems, including the exact difference between gaí- and góši-. It is possible that the former is specific or definite while góši- is indefinite; on the other hand, ga-could be a separate prefix, giving ga- + i- and ga- + u- > go. Such a form could be related to the i- and u- locational prefixes mentioned by Whitman.[2]

Verbs of Motion in Chiwere

Other grammatical categories reflect a similar feature distribution to that of the demonstratives. Taylor (1976) uses data from a number of Siouan languages, including Chiwere, to reconstruct a Proto-Siouan system of motion verbs (Table 2). The set of motion verbs illustrates further the importance of the features location and direction in Chiwere, as well as adding another feature, the vertitive. Vertitive is the term Taylor uses for verbal stems which "relate the motion to one's home or to an earlier location" (1976:288). The Siouan languages distinguish between home and an unspecified location as destination, as well as between the end point of arrival (the act of arriving) and the inception and/or the continuation of motion, and between 'here' and 'there' as location or goal.[3]

Destination:	arriving motion	motion prior to arrival
here....	ǰí; grí	hú; gú
there...	hí	rá; grá

Table 2:
Chiwere Nonvertitive/Vertitive Motion Verb Stems (Taylor 1976:293).

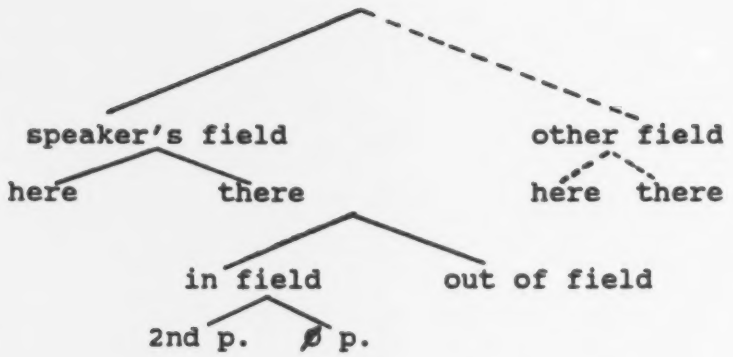
Although Taylor does not classify ǰi as vertitive, its use implies that the agent has left home or a previously mentioned location in order to arrive here at the place of the speech event. Thus, the vertitive in Chiwere functions semantically to distinguish source as well as goal. My primary consultant associates use of the vertitive with humans, and nonvertitive with objects or animals. He further explains that Chiwere speakers assume people are going home unless told otherwise.

Discussion

I'd like to examine the models of universal deixis proposed by Denny (1978) and Rauh and Schmid (1983) in light of the Chiwere data. Figure 3 represents local deixis in Chiwere within Denny's feature system. The first feature is clear-cut, that of speaker's position vs. all others. I hypothesize that gaí- and góši represent extended vs. nonextended, and hą́ri may be represented by the category 'out of field', since the referent may or may not be visible, and since the normally obligatory grammatical category of the position/activity of the referent may be unspecified.

Unlike Eskimo which recognizes verticality, present-day Chiwere does not seem to find the up/down dimension relevant. Nonetheless, the set of motion verbs provides an additional feature important to Siouan languages, that of vertitive vs. non-vertitive. This distinction may be classed as a sub-categorization of the case features of goal (to), that of +/- motion toward home (grą́, gų́ / hų́, rą́) and location (at) +/- home (grí/ ǰí, hí). These are also differentiated according to Denny's first feature, speaker's location vs. all others.

If the category of +/- home is extended to the two other cases, there would be such a distinction in "source" (having left from one's home or not) and "via" (path by or through one's home). This distinction may not be overtly marked in Chiwere grammar, but it seems to be semantically implicit, paralleling the general grammatical tendency to require specification of source and destination. For example, the Chiwere sentence /ikíwarą ǰi kʰe/ 'One came to visit me' is said to imply that the visitor came from his home to visit [ø third person, -ki- reflexive, ǰí 'arrive here', kʰe masculine declarative particle]. Furthermore, as mentioned previously, the distinction between vertitive and non-vertitive can only apply if the subject is human, implying the importance of the distinction +/- human in the language, even if it is covert in the deictic system.



Locative				
nonext.	ǰégi	séda	gaída	hárida
Vert.	grí			
Nonvert.	ǰí			hí
ext.	ígi	ída	góšida	
Goal				
nonext.	ǰégu	ségu	gaígu	hárigu*
Vert.	gú			grá
Nonvert.	hú			rá
ext.	ígu	ígu	góšigu	

Figure 3: Chiwere Spatial Data in a Feature Framework.

To interpret the Chiwere data according to the Rauh and Schmid theory, I have slightly modified their local deictic diagram (Figure 2) to accord with Schmid's four part distinction of (a) topic, (b) indirect relation to (a), (c) the domain of (a b), and (d) not determined in (c). Spatial deixis in Chiwere is presented in Figure 4. This dimension displays an interesting parallel with personal deixis by differentiating between 1st and 2nd person, as well as having an inclusive form (i-) (Hopkins 1988).[4] The additional feature necessary is case: location (-gi, -da) vs. direction or motion towards a destination (-gu).

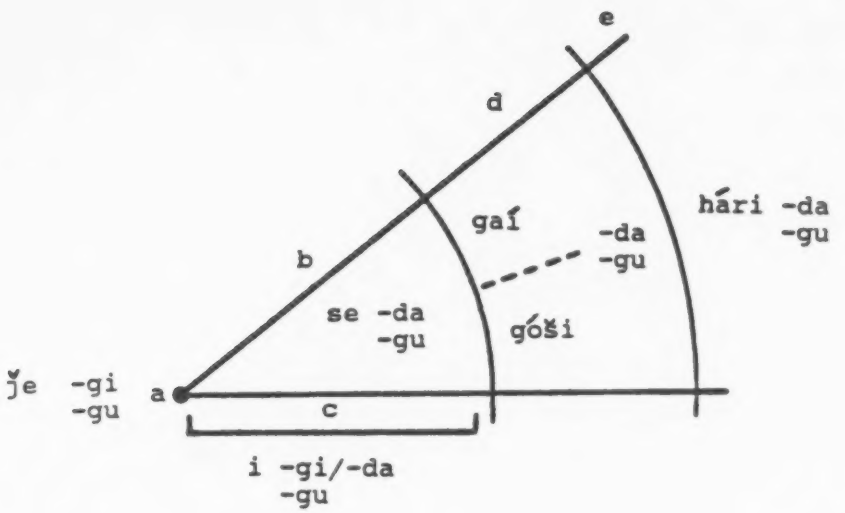


Figure 4: Spatial deixis in Chiwere in Schmid and Rauh deictic template.

There are six morphemes which may take -da or -gu, (although *hari-gu is only a hypothetical form); this fits well with Rauh and Schmid's possible permutations of deictic determination.

D_1: [+a, -b, -c, -d] = ǰe
D_2: [-a, +b, -c, -d] = se
D_3: [-a, -b, +c, +d] = gaí
D_4: [-a, -b, +c, -d] = i-
D_5: [-a, -b, -c, +d] = góši
D_6: [-a, -b, -c, -d] = ? hári

To summarize briefly, the Chiwere system of spatial deixis consists of a set of demonstrative and adverbial affixes and motion verbs which delimit particular areas of space in relation to the situation of utterance. The principle organizing features are: 1) speaker's location vs. all others ('here' vs. 'there'), 2) in field (can point to if necessary) vs. out of field (not necessarily visible), 3) 2nd person's 'there' vs. all other 'theres' which can be pointed at. These categories may be further distinguished by the feature 4) non-extended vs. extended, 5) location /stationary vs. direction/motion, and a final distinction, 6) vertitive vs. non-vertitive, which implies the importance of the category +/- human.

In a pragmatic sense, one important factor in explaining spatial deixis involves representing the terms of a particular language in a heuristically useful way. Both theories provide adequate methods of presenting the Chiwere system. Denny's universal feature set worked well, needing only slight modification for Chiwere, including the addition of the features 2nd person vs. all other 'theres', location /stationary vs. direction/motion, and vertitive. His hierarchical arrangement has the advantage of listing all the features and their inclusiveness, including the vertitive. Furthermore, there is the possibility of eventual discovery of a universal implicational hierarchy of these features.

In regard to the other theory, part of the attractiveness of the Rauh template as modified for Chiwere data in Figure 4 is that it clearly locates the different domains as they relate to the origo. Furthermore, the use of a template which is not specific to a particular dimension of deixis (spatial, temporal, personal) allows similiarities within a particular language's system to be more clearly illustrated, as well as providing an iconic representation of a potentially simpler, more elegant universal theory of deixis. Finally, the psychological implications of Bühler's egocentric/localistic approach intuitively favor the Schmid and Rauh theory which incorporates it as a base.

In conclusion, the two theories of deixis appear to be complementary rather than competitive. In fact, Rauh (1983:25-30) uses Denny's (1978) data to illustrate language and dimension specific features.[5] The crucial distinction between the two appears to be that Denny did not explicitly organize his system around the total situation of utterance, but concentrated on the local deictic system, which inevitably led to both greater detail and less universal applicability.

NOTES

1. se may also function as an independent demonstrative, but there is not evidence yet to support this.

2. Whitman names three positional prefixes, a-, i-, u-. "They locate the action of the verb with reference to a third point not that of the subject or object;" a- means 'on, upon, over,' u- 'in, within, into, and i- 'at, to, by and any general locatival not in the other two' (1947:241).

3. The vertitive corresponds to the cislocative/translocative distinction made in Iroquoian languages by the addition of verbal prefixes. The cislocative indicates motion toward the speaker and the translocative signals motion away from the speaker. This distinction and its extended uses are discussed at length in Abbot (1981:50-51), Chafe (1967), and Bonvillain (1981:65).

4. It is uncertain at this point whether this is the same prefix i- described by Whitman; my interpretation is based upon the glosses given by native speakers.

5. Schmid 1983 also used a generalized hierarchical representation of his system of deictic determination, which Rauh 1983 transformed into the tabular form used in this paper.

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THE HISTORICAL-COMPARATIVE CLASSIFICATION OF COLOMBIAN INGA (QUECHUA)

Roger Parks

Abstract: Colombian Inga is of particular interest to the Quechuanist because it is the northernmost member of the Quechuan language family spoken in modern times. In the present work the relationship of Colombian Inga to other varieties of Quechua is examined. The affiliation of Inga with the Ecuadorian group of Parker's (1969a) Quechua A branch of the Quechua diasystem is evidenced by shared innovations in the phonology and morphology. Among these are the voicing of the stops /p, t, k/ after homorganic nasals and the replacement of the possessive suffix system by a set of possessive pronouns. Additional innovations unique to Colombian Inga show it to form a distinct subgroup within the Ecuadorian group of Quechua A.

1. The Inga Language.

Inga, as the variety of Quechua spoken in Southern Colombia is known to its speakers, is of particular interest to the Quechuanist because of its place as the northernmost representative of this language family spoken in modern times and because it was apparently introduced into this region at the onset of the Spanish Colonial period during the twilight of the Inca Empire. Colombian Inga is spoken today by ten to fifteen thousand persons in the south of Colombia, principally in the Intendencia of Putumayo, with smaller contingents in the neighboring Departments of Nariño, Cauca, and Caqueta comprising perhaps an additional two thousand. Both Putumayo and Nariño are on the border with Ecuador, where the numerous related idioms known collectively as Ecuadorian Quichua are spoken.[1] Small groups of Ecuadorian Quichua speakers are also found in Colombia, most of whom are itinerant merchants with ties to Ecuador and who have not intermixed with their Ingano cousins. It is from Ecuador that Inga was most likely introduced to Colombia. Putumayo and Caquetá border with Peru, the historic cradle of the Quechuan languages, as well. However, the lowland region of Peru bordering on Colombia is not a Quechua-speaking area and it is less likely--though not entirely impossible--that Quechua was introduced into Southern Colombia by this route.

Less open to debate is the close linguistic affiliation of Colombian Inga with Ecuadorian Quichua. In this paper the linguistic history of Colombian Inga is outlined, from its roots in Proto-Quechua, the reconstructed, hypothetical ancestor of the Quechuan languages.

Modern Domain of Quechua. An innumerable variety of Quechuan languages and dialects are spoken throughout the extensive area in and around the Andes chain. This area corresponds roughly to the Inca Empire of pre-colonial times, although some redistribution of the Quechua speaking populace has taken place during the intervening four centuries. In terms of modern geography the area encompasses: Northern Argentina; Northern Chile; most of the highlands and some lowland areas of Bolivia, Peru, and Ecuador; Southern Colombia.

Proto-Quechuan, the ancestor of modern Quechuan, was probably spoken in what is now Central Peru around the ninth century AD. During the

Kansas Working Papers in Linguistics,1990, Vol.15,No.2,pp.73-99.

intervening millenium it has diverged into a variety of languages and dialects of which the speech of Cuzco, the Imperial headquarters of the Incas, was but one. With the expansion of the Inca Empire beginning in the 15th Century AD, Imperial Quechua–that of Cuzco–was propagated throughout the *Tawantinsuyu*, or 'Four Quarters' of the Inca domain. As the prestige dialect, it influenced–and occasionally supplanted–those forms of Quechua spoken in surrounding areas, much as Castillian influenced or replaced other Peninsular languages and dialects (e.g., Aragonese and Leonese) after the rise of Castile.

In one form or another Quechua also became the *lingua franca* among non-Quechuan speaking groups annexed to the Empire and vassal states. Chiefs and nobles of groups dominated by the Incas were required to send their children to Cuzco for education (Livermore 1966:402). Quechua was then carried back with them as the elite language of culture and refinement. Quechua was also carried to the fringes of the Empire and beyond by refugees from Inca rule.

A further factor in the spread of Quechua were the *mitmac* 'colonists' and *yanakuna* 'laborers' who were dispersed throughout the Empire as workers and settlers, at times involuntarily, to develop unsettled areas and to discourage rebellion. As related by Garcilaso de la Vega, whose father was a Spanish conquistador and whose mother was of royal Inca lineage, 'The Inca kings used to transplant Indians from one province to another to live. Their motives were partly the good of their subjects, and partly their own advantage in securing their dominions from rebellious uprisings' (Livermore 1966:401). The Spanish found this policy equally convenient and adopted it during the Colonial era, thus contributing even further to the spread of Quechua. It is also clear that, to some degree, at least, the Spanish promoted the use of Quechua among indigenous groups. Parker (1969:179-80) comments,

> 'Soon after the conquest large numbers of Indians were brought to Argentina from Southern Peru and Quechua was made the official language of the missionaries (trained in Peru). Historical and linguistic evidence coincide to suggest that Quechua became a standard language in Santiago del Estero, Catamarca, and La Rioja [Argentina] during the colonial period.'

With the arrival of the conquistadors, seen at first as liberators by some recently subjugated tribes, many disenchanted Imperial subjects cast their lot with the Spanish and later received land grants in return for their allegiance.[2] Garcilaso de la Vega (1966:154) observed that '. . . some of the Quitan tribes had only recently been absorbed into the Inca Empire and thought that the arrival of the Spanish was an opportunity to regain their autonomy.' The Cañari tribe of Southern Ecuador was one such group which allied itself with the Spanish. Such factors established Quechua as a lingua franca throughout the Andean region from historical times up to the present.[3]

Introduction of Quechua to Colombia. As early as the reign of Huayna Capac in the late fifteenth century, Quechua was introduced to the Southern extreme of what is modern-day Colombia as a result of Imperial Inca expansion. Imperial dominion extended as far north as the Angasmayo River, south of Pasto. The Quillasinga tribe of this area had only recently become a tributary to the Empire when the Spanish arrived.

The Sibundoy Valley where the Ingas settled is east of the Pasto area across mountainous terrain. It is likely, therefore, that Spanish domination of Southern Colombia, rather than Imperial Inca expansion, brought the Ingas to Putumayo. The Spanish conquistador Sebastián del Belalacázar (also *Benalcázar*) is known to have
relocated Quechuan speaking settlers from Ecuador to Colombia during the early Spanish colonial period.[4] Pazos (1966:6) describes the role of the Spanish in establishing Quechua in Colombia:

> 'La existencia del Quechua en Colombia es similar a la de los países circundantes del incario. Las prinicpales razones en el caso colombiano son: las conquistas incaicas; las migraciones del territorio que hoy es el Ecuador; la acción de los conquistadores, encomenderos y yanaconas; la acción de los misioneros.'

According to Garcilaso de la Vega (1966:156), three thousand Cañari 'joined the Spanish force as eager volunteers. They performed throughout the Quitan campaign with savage glee.' It is possible that the Ingas are descendents of some such group which sided with the Spanish against the failing Empire and received territory in the Sibundoy Valley as compensation. It is even possible that the reason they were installed there was to assist in the pacification of the Camsá, who were the earlier inhabitants of the valley.

However they may have arrived, from the mountain valley of Sibundoy (Alto Putumayo) the Ingas spread south and east into the foothills and lowlands (Bajo Putumayo), and later, north across the mountainous *páramo* to settle Aponte, a reserve consigned to them in 1621 by Don Luis de Quiñones, Surveyor for King Philip III of Spain, as confirmed in the testament of the Inga Patriarch Carlos Tamoavioy in 1737 (Levinsohn, et al, 1982:56). Ingas have resided in the Sibundoy and contiguous areas for about four centuries. Another group of Quechua speakers, the *Anakona* (< *Yanakuna*), also inhabited Southern Colombia during early colonial times, somewhat to the north of the Inga area. According to tradition, they were members of the Quechua-speaking *Chincha* tribe brought to Colombia from Peru (Pazos 1966:6). Testimony to their earlier presence in Colombia survives in a number of place names.

Linguistic Affiliation of Colombian Inga. In view of the political history of the area, it is not surprising that Inga shows the greatest linguistic affinity to those varieties of Quechua spoken in modern Ecuador. In the following pages this affinity will be explored and the linguistic affiliation of Inga with the Ecuadorian subgroup of Quechua verified on the basis of shared phonological and morphological innovations.

2. Comparative Overview of Inga Grammar.

The many related idioms spoken by the eight to ten million progeny of the Inca Empire are known variously as Quechua, Quichua, Runa Simi ("human speech"), Inga (i.e., *Inca*), as well as by other regional names.[5] All share a similar basic grammatical structure and lexical inventory, with such differences as might be expected to accrue across the centuries due to independent regional development, influence from other indigenous tongues and contact with Spanish.

Quechuan languages are suffixing, agglutinative and have a basic S-O-V sentence structure which may be permuted by discourse level criteria such as topic, focus and so on. There is a substantial noun suffix system, an extensive verb suffix system, and a number of independent suffixes which attach to words of any grammatical category. There is no prefixation in inherited vocabulary. There is also a surprising lack of irregularities, exceptions and complex morphophonemics in the grammar.

Most Quechuan roots are bisyllabic. Stress normally falls on the penultimate syllable, shifting right as suffixes are added: e.g., Cuzco *wásí* 'house', *wasí-nku* 'their house', *wasi-nkú-pi* 'in their house', etc. However, there are exceptions to this rule. In Inga, for example, the topicalizer *-ka* and the evidentials *-mi* 'ASSERTION' and *-si* 'REPORT', when appended to substantives, are "invisible" to the stress placement rule: cf. Inga *núka* 'I', *núka-ka* 'as for me'; *súma* 'beautiful, *súma-mi* 'beautiful (ASSERT)'.

	Inga	Cuzco	Huallaga	Gloss
Object	*-ta*	*-ta*	*-ta*	(DO, IO)
Locative	*-pi*	*-pi*	*-čaw*	'in, at'
Goal	*-ma*	*-man*	*-man*	'to(wards)'
Ablative	*-manda*	*-manta*	*-pita*	'from'
Comitative	*-wa*	*-wan*	*-wan*	'with'
Associative	*-ndi*	*-ntin*	*-ntin*	—[6]
Genitive	*-pa*	*-q*	*-pa*	'of'[7]
Purposive		*-paq*		'for'

Table 1. Common nominal suffixes in Inga, Cuzco and Huallaga Quechua.

Noun Morphology. In *Table 1* (above) some of the more productive nominal suffixes found in Colombian Inga are listed, along with the corresponding suffixes in Cuzco Quechua and Huallaga (Huánuco) Quechua for comparison. Cuzco and Huallaga are chosen since they are representative of the two principle historic branches of Quechua, Quechua A (Cuzco) and Quechua B (Huallaga).[8] Each Inga suffix is cognate with the corresponding Cuzco suffix in every case, and with the corresponding Huallaga suffixes in all cases except locative *-pi (-čaw)* and ablative *-manda (-pita)*.

The displacement of PQ **-pi* and **-manta* by the forms *-čaw* (< **čaw* 'middle, half') and *-pita*, respectively, is in fact a defining feature of the QB dialects. The PQ root **čaw* survives in QA with more or less the original meaning: cf. Inga *čawxpi* 'middle'. Colombian Inga clearly belongs with the QA group on the basis of this criterion, as well as others which will be discussed as they arise.

On the other hand, Inga differs from Cuzco and most other dialects of both Quechua A and B, excluding those of the Ecuadorian branch, in its loss of the nominal personal possessive suffix system. For example, in most Quechua dialects the 1st singular possessive suffix is *-ni* and the 3rd singular is *-n*: Cuzco *wasi-ni* 'my house', *wasi-n* 'his/her house'. In Colombian Inga and Ecuadorian Quichua the functions of these suffixes have been assumed by possessive pronouns. These are usually inflected with the genitive suffix *-pa*, although *nuka*

'I' may appear uninflected with the meaning 'my': *nuka wasi* /1s-Ø house) 'my house', *pay-pa wasi* (he-GEN house) 'his/her house'.

The personal possessive suffixes not only indicate possession when affixed to nouns, but also mark (underlying) subject person-number in nominalized verb constructions: e.g., Cochabamba (Bolivian) *kawsa-na-nku-paq* /live-NOM-3PL-PURP/ 'in order for them to live' (Bills, et al., 1969:285), where *-nku* is the third-person plural possessive suffix. In Inga and Ecuadorian, only constructions of the type *kawxsa-nga-pa* /live-NOM-PURP/ 'in order to live' (lacking a possessive suffix) are possible. The object of the nominalized verb, if expressed, must be expressed by a pronoun: e.g., *pay-kuna-pa* (*kawxsa-nga-pa*) /3-PLUR-PURP (live-NOM-PURP)/ '(in order) for them (to live)'.

Verb Morphology. The Quechuan verbal suffix system is complex, and no attempt will be made to fully explicate it here. Historically, Quechua verbs are inflected for (1a) tense, mode and aspect; (1b) subject and object person-number, reflexivity and reciprocality; (1c) directionality, benefactor, etc. Additionally, there are (2) derivational suffixes (deverbalizers), (3) nominalizers and subordinators, and (4) independent suffixes (which also modify nouns, adjectives and adverbs). (See *Table 6.*)

An impressive number of morphemes can be chained together in a single word in Quechua. The following example is from Bolivian Quechua (Bills, et al., 1969:335):

(1) *Tiyarichikamullay!*
tiya-ri-či-ka-mu-lʸa-y
/ sit / POLITE / CAUS / REFL / TRANSLOC / DELIMIT / IMPER /
'Please just go have him take a seat.'

In *Table 2* below are displayed a cross-section of Inga verbal suffixes together with their counterparts in Cuzco and Huallaga Quechua for comparison. The forms of two of the suffixes listed therein corroborate the assignment of Inga to the QA group on the basis of noun morphology. These are the first-person subject marker *-ni* and the first-person object marker *-wa*. In both cases Inga is in agreement with Cuzco and other QA dialects over against Huallaga and the QB dialects. The latter signal first-person singular subject through lengthening of the stem-final theme vowel and first-person object by some variation of the distinctive suffix *-ma(a)*.[10]

While otherwise in general accord with the QA group, Inga and the Ecuadorian dialects have simplified the historic Quechua system considerably. First, the complex, somewhat syncretistic set of subject-object suffixes found in Southern QA and in QB (*Table* 3 below) has been simplified (cf. *Table 4* below). Second, the nominal suffixes of possession, which mark the underlying subject in nominalized verbal constructions, have been replaced by personal pronouns in the genitive. Third, many suffixes which are productive in other Quechuan dialects (a) have become nonproductive or fossilized, (b) have been lexicalized or replaced by paraphrastic constructions, or (c) have disappeared altogether in Inga.

	Inga	Cuzco	Huallaga	Gloss
1s Subject	*-ni*	*-ni*	*-V:*	'I'
3s Subject	*-(n)*	*-n*	*-n*	'he, she, it'
3pl Subject	*-nkuna*	*-nku*	*-n*	'they'
1s/pl Object	*-wa*	*-wa*	*-ma:*	'me'
Benefactive	*-pu*	*-pu*	*-pa:*	'for/to/on one'
Cislocative'	*-mu*	*-mu*	*-mu*	'hither'
Past Tense	*-rka*	*-r(q)a*	*-ra*	'-ed'
Causative	*-či*	*-či*	*-či*	'make (VERB)'
Progressive	*-ku*	*-sa*	*-yku*	'-ing'
Reflexive	*-ri*	*-ku*	*-ku*	'oneself'

Table 2. Some common verbal suffixes in Colombian Inga with the corresponding suffixes in Cuzco and Huallaga Quechua. (The symbol *-V:* represents a lengthened theme vowel.)

In Inga the set of subject-object person-number suffixes has been reduced to fifteen from about twenty-five in Bolivian and other conservative Southern QA varieties. Contributing significantly to this reduction is the loss of all forms marking 1st person-plural exclusive subject or object--about seven forms in all--and the loss of the 3subj/2obj morpheme *-su*, which combines with other suffixes to create syncretistic forms. Retained are the 1st person object marker *-wa* and the 1subj/2obj suffixe(s) *-yki(čis)*. On the other hand, Inga has created novel 1s-subj/3obj and 3subj/3pl-obj forms using the plural marker *-kuna*, an innovation not found in Southern-QA dialects.

Subject Person-Number	Intrans/ 3s/pl	1s	Object Person-Number 2s	1(+)	1(-)	2pl
1s	*-ni*	–	*-yki*	–	–	*-ykičis*
2s	*-nki*	*-wanki*	–	–	*-wayku*	–
3s	*-n*	*-wan*	*-sunki*	*-wančis*	*-wayku*	*-sunkičis*
1(+)	*-nčis*	–	–	–	–	–
1(-)	*-nku*	–	*-yku*	–	–	*-ykičis*
2pl	*-nkičis*	*-wankičis*	–	–	*-wayku*	–
3pl	*-nku*	*-wanku*	*-sunku*	*-wančis*	*-wayku*	*-sunkičis*

Table 3. The present-tense, person-number system of Cochabamba (Bolivia) Quechua (Bills, et al., 1969:130). Cf. the Inga system in *Table 4* below. Suffixes no longer found in Colombian Inga are highlighted in bold type.

In some cases cognate suffixes no longer have the same meaning or function across dialects. An example of this is *-ri*, which in Inga has the meaning of 'reflexive' or 'medio-passive', as it does in Ecuador. E.g. *kawa-ri-y* 'to appear (be seen)' < *kawa-y* 'to see'. In Cuzco, however, *-ri* indicates 'diminuitive', in Bolivian it signifies 'inceptive' or 'politeness', and in Huallaga 'punctual aspect'. Vestiges of some of these former functions of *-ri* survive in Inga in a handful of verbs such as *kallari-y* 'to begin' and *pakari-y* 'to dawn'.

Subject Person-Number	Intrans/ 3s	Object Person-Number 1s	2s	1pl	2pl	3pl
1s	*-ni*	–	*-yki*	–	*-ykičita*	*-nicunata*
2s	*-ngi*	*-wangi*	–	–	–	–
3s	*-(n)*	*-wa(n)*	–	–	–	*-cunata*
1pl	*-nči*	–	–	–	–	–
2pl	*-ngiči*	*-wangiči*	–	–	–	–
3pl	*-nkuna*	*-wankuna*	–	–	–	*-cunata*

Table 4. The present-tense, person-number system of Colombian Inga (from Levinsohn 1978). Compared to the Southern QA dialects the Inga verb system has been considerably simplified, a characteristic of all Ecuadorian dialects. Innovative Inga forms are highlighted in bold type.

Interestingly, the loss in Inga and Ecuadorian of noun morphology--particularly the possessive suffixes--contributes to the simplification of the verbal system as well. As an example, the purposive verbal construction in Quechua is transparently a synthesis of the nominalizing suffix *-na* (Inga *-nga*) plus the purposive nominal sufffix *-paq* (Inga *-pa*): e.g. Inga *miku-nga-pa* 'in order to eat'. In Inga and Ecuadorian, however, the two suffixes are never separated by intervening forms as they are in other varieties of Quechua. Again, compare the following Inga and Bolivian nominalized verb constructions:

Inga	Bolivian
(2a) *kawxsa-nga-pa* /live-NOM-PURP/	(b) *kawsa-na-nku-paq* /live-NOM-3PL-PURP/
'in order to live'	'in order for them to live'

In (2b) third-person plural *-nku* 'their', representing the underlying subject of this construction, is interposed between *-na* 'NOMINALIZER' and *-paq* 'PURPOSIVE'.

The following verb stems contain suffixes which in Cuzco and Huallaga Quechua are productive but which are fossilized or no longer productive in Inga:[11]

	Inga		Huallaga		Cuzco
(3a)	*ya-yku-* 'enter'	(b)	*ya-ykU-* 'enter'	(c)	*ha-yku-* 'enter'
(4a)	*su-rku-* 'extract'	(b)	*ya-rqu-* 'go out'	(c)	*(h)o-rqu-* 'extract'
(5a)	*wa-rku-* 'hang up'	(b)	*ya-rkU-* 'go up'	(c)	*wa-rku-* 'hang up'

The stem *ya-yku-* 'enter' is found in Huallaga alongside forms like *ya-rqu-* 'to go out', *ya-rku-* 'to go up', *qa-yku-* 'to drive into' (e.g. *cattle*, into a corral), etc. In Huallaga, then, this stem is readily analyzable as comprising a root *ya-* plus suffix *-yku*. In Inga, however, the stem can only be so analyzed diachronically, as other stems containing these morphemes with which to compare it are rare or nonexistent. Other examples of Inga stems which historically may have contained productive derivational or modal morphemes which must be analyzed synchronically as frozen morphs are *samayku-y* 'to be startled', *urayku-y* 'to descend', *pakaku-ri-y* 'to take shelter' and *mitiku-y* 'to take flight'; cf. *sama-y* 'to

stand', *ura* 'below', *paka-y* 'to hide'. The root of *mitiku-y* appears to be related to Classical Cuzco *mitmaq* 'emigrant, colonist'.

Huallaga/Cuzco	Inga
-na 'PERFECTIVE'	*ña* 'already'
-raq 'IMPERFECTIVE'	*čay-ra* 'still', *mana-ra* 'no longer'
-mu 'TRANSLOCATIVE'	STEM + *-g riy* 'go and (VERB)'

Table 5. Some examples of suffixes which are productive in many varieties of Quechua, such as Cuzco and Huallaga, but which have been lexicalized or have been replaced by paraphrasis in Inga.

Some suffixes which are still productive in other varieties of Quechua have been lexicalized or replaced by paraphrasis in Inga (*Table 5* above). Whereas the perfective verbal suffix *-na* and imperfective *-raq* are productive in Cuzco and Huallaga, for example, *-na* has been lexicalized in Inga to create the free form *ña* 'already'.[12] The imperfective marker *-raq* 'still' has fused in Inga with the root morphemes *čay* 'that', *mana* 'not', and *ama* 'don't!', to produce the novel forms *ča(y)ra* 'still', *manara* 'no longer' and *amara* 'not yet!' This frozen morph *-ra* is found only in these words in Inga, although it is still a productive suffix in other Ecuadorian dialects.

The suffix *-mu* in more conservative dialects of Quechua has both cis- and translocative functions. The cislocative is used with verbs of motion and signifies 'motion towards the speaker'; e.g., Huallaga *apa-mu-y* 'bring (me)' (literally, 'carry here'). The translocative occurs with nonmotion verbs and expresses the idea of going away to perform an action (and optionally returning) 'go and (VERB)'; e.g., Huallaga *rika-yka-mu-nki* 'go and see' (< *rika-y* 'to look'; Weber 1983:93). Only the cislocative form of *-mu* is productive in Inga and most Ecuadorian dialects: e.g., Inga *apa-mu-y!* 'bring (it) here!' (but not, for example, **ni-mu-y!* 'go and tell him'). In these dialects the translocative function of *-mu* has been replaced by a paraphrastic construction utilizing the verbs *riy* 'go' and *samuy* 'come'. This construction is formed by affixing the agentive suffix to the matrix verb, which is then followed by a form of *riy* 'to go' or *samuy* 'to come'. Cf. the following example of the use of this paraphrastic construction (Jamioy, et al., 1982:19) with Huallaga *rika-yka-mu-nki* 'go and see':

(6) *Cahuapuagrig!*[13]
/ *kawa-pu-wa-g-ri-g* /
/ see-BEN-1OBJ-AGT-go-IMPER /
'Go and see for us!'

Some suffixes found in other dialects no longer occur in any form in Inga. Again, compare the complex verb system of Bolivian Quechua, a more conservative QA cousin, with that of Inga. In *Table 6* (below) the verbal suffix schema for Cochabamba Quechua is presented (based on Bills, et al., 1969:113, 335). Categories of suffixes are presented from left to right in the general order in which they follow the stem; the suffixes themselves are listed from top to bottom in the general order in which they are added to the stem. (The exact order varies somewhat among dialects.)

Of the dozen or so suffixes classified by Bills, et al., as *modals*, Inga retains as productive only *-či, -mu, -pu,* and *-lʸa; -ri* and *-ku* also occur with altered functions. As previously mentioned, inceptive *-ri* is found as a fossil form, but as a productive form *-ri* is the reflexive marker in Inga, replacing Southern QA *-ku*. The latter, in turn, functions in Inga to mark continuative aspect (i.e., progressive), replacing Southern *-sa*. Of the simple object markers, only *-wa* remains. The 3subj/2obj suffix *-su* has disappeared entirely. Syncretistic *-(y)ki* '1subj/2obj' is retained (cf. *Table* 3). Tense markers remain essentially the same, but some modification has taken place among nominalizing suffixes both through the emergence of novel periphrastic constructions and through the borrowing of Spanish verbal suffixes. For example, the Inga periphrastic future construction *tarpu-ngapa ka(-n)* 'he's going to plant' is found alongside the simple future *tarpu-nga* 'he will plant', and in Santiago, at least, appears to be replacing it. In the frequentative construction *ri-dur ka-rka-nkuna* 'they used to go', the Spanish agentive suffix *-dor* has supplanted the inherited Quechua agentive *-x* (< **-q*) in what is otherwise a historically Quechuan construction; cf. Bolivian *ri-q ka-rqa-nku* 'they used to go'. Borrowed Spanish morphology is also found in the perfect tenses and in a class of temporal constructions: e.g., *pus-ado ka-ni* '1 have carried'; *čaya-mu-hora* /arrive-CIS-when/ 'when he arrived here' (Levinsohn 1978:18, 28).

STEM +	MODAL SUFFIXES +	OBJECT MARKERS +	TENSE MARKERS +	PERS/NUM SUFFIXES +	INDEPENDENT SUFFIXES
	-ykača 'FREQ'	*-wa* '1-OBJ'	*-rqa* 'PAST'	(see	*-ña* 'IMPERFECTIVE'
	-yka 'FINALITY'	*-su* '2-OBJ'	*-nqa* 'FUT'	*Table* 3	*-raq* 'PERFECTIVE'
	-rqu 'HONORIFIC'	*-yki* '1SUBJ/2OBJ'	*-sqa* 'NARR'	above)	*-puni* 'EMPHATIC'
	-rpa 'EXTEMP'				*-taq* 'CONJUNCTIVE'
	-ri 'INCEPTIVE'				*-pis* 'ADDITIVE'
	-či 'CAUSATIVE'		IMPERATIVE: *-y[čis]*		*-ču* 'NONFACTUAL'
	-ysi 'COLLABORATIVE'				*-ča* 'CONJECTURAL'
	-na 'RECIPROCAL'		NOMINALIZERS:		*-čus* 'DUBITATIVE'
	-ku 'REFLEXIVE'		*-y* 'INFINITIVE'		*-qa* 'TOPICALIZER'
	-mu 'DIRECTIONAL'		*-na* 'FUT SUBORDINATOR'		*-ri* 'POLITE'
	-pu 'BENEFACTIVE'		*-q* 'AGENTIVE'		*-mi(n)* 'ASSERTATIVE'
	-lʸa 'DELIMITATIVE'		*-sqa* 'OBJ SUBORDINATOR'		*-si(s)* 'REPORTATIVE'
	-sa 'CONTINUATIVE'		*-qti* 'DIFF/SUBJ SUBORDINATOR'		
			-spa 'SAME/SUBJ SUBORDINATOR'		

Table 6. Outline of the verbal suffix system of Cochabamba (Bolivian) Quechua (Bills, et. al, 1969:113, 335).

Inga preserves essentially the same set of nominalizers, with modifications alluded to above: (1) loss of personal possessive suffixes resulting in simpler nominalized constructions; (2) encroachment of Spanish suffixes such as *-ado/-ido, -dor, -dero* and *-hora*. E.g., *rigs-ido* 'acquaintance' (< *rigsi-y* 'to recognize'), *wača-dora* 'laying hen', *puñu-dero* 'bed' (< *puñuy* 'to sleep'), *čaya-hora* 'when he/she arrived'.

The different-subject subordinator **-pti* (*-qti* in S-QA) takes the form *-xpi* in Inga and also the Ecuadorian dialects, perhaps through reanalysis as *-x* 'agentive' plus *-pi* 'locative'. For example, in the Guayuyacu Inga expression *časa ni-[ɣ]-lla-pi-si* /thus say-AGT<DELIM>LOC-REP/ 'just as he said that', the sequence *-[ɣ]pi* is seen to behave in just this fashion, delimitative *-lla* intervening between the

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(reanalyzed) components *-x* and *-pi* (*-x* is voiced > *-ɣ* by the following palatal lateral) . The replacement of **-pti* 'D/S SUBORDINATOR' by **-kpi* is a defining characteristic of the Ecuadorian Branch.

Of the independent suffixes found in Bolivian and other Southern varieties, Inga has lost *-puni* 'emphatic' and *čus* 'dubitative' (*-ri* 'polite' is a Bolivian innovation). Furthermore, as previously stated, *-ña* 'perfective' has been lexicalized and *-raq* 'imperfective' is found only as a vestige in the lexemes *ča(y)ra* 'still', *manara* 'no longer' and *amara* 'not yet'. Conjunctive *-taq* is also relegated to frozen-morph status, surviving only in interrogative expressions like *pi-ta?* 'who?', *imása-ta?* 'how?'; and in the complex suffix *-lla-ta(ta)* 'just like' (< *-lla* 'DELIMIT' + *-ta* 'CONJ'). E.g. *časa-lla-ta* 'just that way', *mana nukanči-sina-lla-tata* 'not at all like us'.

Not included in *Table 6* above are the denominalizing suffixes *-ya* (INTRANSITIVE) and *-ča* (TRANSITIVE) for deriving verb stems from nouns and adjectives; and deverbalizer *-naya* 'DESIDERATIVE' (*ibid.*:336). Inga retains the first and the last, but has lost the second through merger with *-či* 'CAUSATIVE'. E.g.: Bolivian *puka-ya-y* 'to turn red' (< *puka* 'red'), *miku-naya-sa-ni* 'I feel like eating' (< *miku-y* 'to eat'); Inga *amsa-ya-y* 'to grow dark' (< *amsa* 'dark'), *yaku-naya-ni* 'I'm thirsty' (< *yaku* 'water').

The most complex aspect of Quechuan morphology is the verbal suffix system. Inga, in company with the Ecuadorian dialects, has simplified this system both through a reduction in the number of inflectional categories and forms, as well as through the loss of the nominal possessive suffix system, which marks subject person-number for nominalized verb constructions in more conservative varieties of Quechua.

	Inga	Cuzco	Huallaga	Gloss
Topic	*-k(a)*	*-q*	*-qa*	'as for...'
Assertative	*-m(i)*	*-mi*	*-mi*	(Eyewitness)
Reportative	*-si*	*-ši*	*-ši*	(Reported)
Nonfactual	*-ču*	*-ču*	*-ču*	'QUES/NEG'
Additive	*-pas*	*-pis*	*-pis*	'also, even'
Delimitative	*-lʸa*	*-lʸa*	*-lʸa*	'just, only'

Table 7. Some examples of independent suffixes in Inga, Cuzco and Huallaga Quechua.

Independent Suffixes. In addition to the elaborate nominal and verbal suffix systems, there are also found in Quechua a class of independent suffixes, or clitics (*Table 7* above). Examples of independent suffixes in Inga are the topicalizer *-k(a);* the evidentials *-mi* 'ASSERTION' (which indicates an eyewitness account), *-si* 'REPORT' (which indicates a second-hand account) and *ču* (which marks negatives and interrogatives); and *-lʸa* 'DELIMITATIVE' and *-pas* 'ADDITIVE'. These affix to any part of speech after all other derivational and inflectional suffixes have been added. In the following Inga example, the order of morphemes is STEM + INFLECTION + SUBORDINATOR + INDEPENDENT SUFFIX:

(7) *llugsicuhoraca*
/ ʔuxsi-ku-hora-ka /
/ descend-PROG-TEMP-TOP /

'as (the sun) was going down'

The topicalizer *-k(a)* is used extensively in Inga–much more so than in Peruvian and Bolivian varieties of Quechua or even the Ecuadorian dialects most closely related to Inga. This suffix serves principally to introduce new topics or to signal a change in topic (e.g., if the "new" topic has already been introduced in previous text but has been discontinued temporarily for another topic). The evidentials *-mi, -si* and *ču* are also extensively employed and mark the *comment*--usually new information about the *topic*–of an utterance. These most often appear with the object of a verb, but not infrequently they are attached to the verb itself or affixed to an adjective or adverb:

(8) *Café tianchu? Arí, tiami.*
/ café / tia-n-ču / arí / tia-mi /
/ café / be-3s-QUEST / yes / be-ASSERT /

'Is there any coffee? Yes, there is.'

3. Quechuan Dialectology.

In this section the classification of the Quechuan languages and dialects into major dialect groups and subgroups and the motivating linguistic factors for such a classification are discussed. A revised version of the classification scheme of Parker (1969d/e) is presented in *Table 8* (next page).

I. Quechua B. Ancash, Huaylas, Junín, Huallaga, etc., (Central Peru).
II. Quechua A.
  A) **Northern Peruvian.** Cajamarca, Ferreñafe (Northern Highland Peru).
  B) **Lowland Peruvian.** Amazonas, Chachapoyas, San Martín (Northern Peruvian Lowlands).[14]
  C) **Ecuadorian-Southern.**
    (i) **Southern.** Cuzco, Ayacucho, etc. (Southern Peru); Cochabamba, Potosí (Bolivia); Santiago del Estero (Argentina).
    (ii) **Ecuadorian.**
      (a) **Highland Ecuadorian.** Loja, Azuay, Imbabura, Chimborazo, Pichincha, etc. (Western and Central Ecuador).
      (b) **Lowland Ecuadorian.** Bobonaza, Tena, Limoncocha (Eastern Ecuadorian Lowlands).
      (c) **Pastaza (?)** (Northern Peruvian Lowlands.)[15]
      (d) **Colombian.** Santiago, Aponte, San Andrés, Yungillo, Guayuyaco (Southern Colombia).

Table 8. Outline of major Quechuan language and dialect groups (based on Parker 1969d/e with modifications from Grimes 1985).

Contributing to the complexity of distribution and, therefore, the difficulty

of classification of Quechuan dialects and languages are the rugged Andean terrain and the historic mobility of Quechua-speaking groups. In the first instance, populations only a few kilometers distant may be separated by virtually intraversable geographical features such as ravines or ridges, which effectively isolate them and leave them to develop linguistically independently from one another (e.g., Corongo and Northern Huaylas QB; Parker 1969d:8). In the second case, dialects which are now geographically removed from one another may have originated in close proximity to one another and thus show unexpected similarities (e.g., Cajamarca and Northern Lima; Parker 1969c:194).

To these factors may be added the influence on other dialects of Cuzco Quechua during the Imperial period, the Inca, and later, Spanish, policy of translocating groups of *mitmaq* and *yanakuna* from one province to another, and colonial missionization programs using Quechua as a *lingua franca* to further complicate the distribution of Quechuan dialects and their affiliations. However, Quechuanists such as Alfredo Torero (1964, 1968, 1974), Gary Parker (1969a-e), Rudolfo Cerrón-Palomino (1976), Carolyn Orr and Robert Longacre (1968), among others, have proposed classification schemes for the Quechuan languages and dialects based on shared phonological and morhophological traits--particularly shared innovations--and shared lexical inventory. Due to the unavailablility of Torero's works to the author, Parker's (1968a-e) classification system, similar to Torero's (1964), is used here, with minor modifications in light of more recent publications on Quechuan dialectology, such as Grimes (1985).

Comparative Quechuan Linguistics.[16] The cradle of the Quechuan languages is widely held to have been central Peru, although Parker (1969a:67-70) argues for a more northern origin. In this area are found representatives of the two major branches of Quechua, designated Quechua A and B by Parker (1969a). Parker (1969a:66) explains:

> 'As soon as it was possible to apply the comparative method, it became clear that the central Peruvian dialects constitute a genetic group, which I call Quechua B. All available information on other dialects, both north and south of the Quechua B area, suggested that they constitute a second group--Quechua A. . . . [Data have] constantly strengthened the theory that Quechua A and Quechua B represent the initial branching.'

According to Parker, QA further divides into Northern Peruvian (NP) and Ecuadorian-Southern (Ec-S), the latter group itself comprised of two subgroups which encompass the Ecuadorian dialects (Ec) and those of Southern Peru, Bolivia, Argentina and Chile (S). The little-studied group of Northern Peruvian (QA) dialects lies to the south of the Ecuadorian pale, between the northernmost QB dialects and southernmost Ecuadorian QA.

Like Parker, Torero (cited in Parker 1969a-e and Grimes 1985) organizes the Quechuan languages and dialects into two major branches, which he terms Quechua I and Quechua II. Quechua I corresponds to Parker's Quechua B and his Quechua II to Parker's Quechua A. Torero further divides Quechua II into Quechua IIa, corresponding roughly to Parker's Ecuadorian subgroup of QA, together with the Lowland Peruvian dialects; IIb, corresponding to Parker's Northern Peruvian group of QA, excluding the Lowland dialects; and IIc, equivalent to Parker's Southern subgroup of QA.[17]

Cerrón-Palomino (cited in Grimes 1985) divides Quechua into three, rather than two, major groups: Southern, Central, and Northern. The Central group corresponds to Parker's QB, and the Southern and Northern groups together correspond to Parker's QA. The Northern group encompasses the Northern Peruvian and Ecuadorian subgroups of Parker's QA and the Southern group coincides with Parker's Southern QA.

Grimes would modify this picture somewhat. Using Torero's data and analysis as a point of departure, Grimes (1985) provides network theoretical evidence for a more complex arrangement with a southern, a central and and three northern groups of dialects--five groups in all: 'Quechua is divided into a southern group, a central group--whose boundary is not clear in the Yauyos area--and three peripheral groups in the north at about the same level of separation as there is between the southern and central groups.' Thus, he would separate Ecuadorian from Parker's Ecuadorian-Southern (Ec-S) and Lowland Peruvian (LP) from Parker's Northern Peruvian (NP) to recognize three distinct northern groups (*Figure 1* below). On the basis of shared phonological and morphological characteristics, however, it seems appropriate to recognize the affinity of the three northern groups with the southern one and with each other, over against the QB group. Whereas Grimes correctly demonstrates the synchronic diversity of the northern dialects within QA, his analysis does not confute the historical unity of QA as a major branch.

The position taken here, therefore, is that the Northern and Lowland Peruvian dialects constitute distinct groups within the larger group, or branch, of Quechua A. A special affiliation between Ecuadorian and Southern, based on shared phonological traits (such as laryngeal contrast) and morphological attributes (such as verbal plural in *-kuna*), is also recognized.

Ecuadorian (= EcS-QA)	Northern Peruvian (= NP-QA)	Lowland Peruvian (= NP-QA)
	Central (= QB)	
	Southern (= EcS-QA)	

Figure 1. Quechuan sub-groups according to Grimes (1985). Categories in parentheses correspond to Parker's (1969a) classification.

Quechua A and Quechua B. Geographically, QB forms a pocket of dialects in central highland Peru essentially surrounded by QA dialects (see, for example, *Figure 1* above). QA is spoken in Peru, Ecuador and Colombia to the north of QB, and in Peru, Bolivia and Argentina to the south of QB.

The subgroups of QA can be differentiated on the basis of shared phonological and morphological traits. This is largely due to the pattern of past migrations which disseminated the language itself to new regions at different

stages in its development. In the QB-speaking region, however, it was largely the individual changes themselves, and not the emerging dialects (through migrations), which were disseminated. These linguistic innovations diffused through the QB area from different epicenters at different times and to different extents. As a result, variable traits characteristic of QB are shared to varying degrees by different local varieties of QB and it is neither meaningful nor practical to organize these local varieties according to genetic criteria as it is in the case of QA. Parker (1969e:2) concludes, 'In the present study [of Quechua B] the family tree model must be abandoned. . . . [T]he many isoglosses are independently distributed to such an extent that only a wave model can accurately represent the linguistic facts.'

Quechua B. The principle morphological criteria which distinguish QB from QA, mentioned above, are the use in the former of refelxes of the nominal suffixes *-čaw* 'LOCATIVE' and *-pita* 'ABLATIVE' and the verbal suffixes *(V)-*: (phonemic vowel length) '1-SUBJ' and *-ma(a)* '1-OBJ', where QA has *-pi* 'LOCATIVE' and *-manta* 'ABLATIVE' and the verbal suffixes *-ni* '1-SUBJ' and *-wa* '1-OBJ.

There is also one major phonological innovation of QB which sets it off as a group from QA. That is the coalescing of PQ sequences **aya* and **iya* into QB /a:/ (Parker 1969c). Cf.:

QA (Cuzco, etc.)		QB (Ancash, etc.)		Gloss
(9a)	*šaya-ku-*	(b)	*ša:ku-*	'stand, stop'
(10a)	*ñan*	(b)	*na:ni* < *niyani*	'road'
(11a)	*tiya-ku-*	(b)	*ta:ku-*	'sit, reside'

Other innovations in the QB speaking area, however, are at various stages of diffusion and have occasionally spread into QA-speaking areas. Among these are (a) the aspiration of PQ **s* > /h/ in word-initial position (and later in other environments): **sara* > *hara* 'corn' (Ancash); (b) loss of intervocalic /h/: **wasi* > *wahi* > *wayi* 'house' (Huaraz); (c) depalatalization of PQ **ñ* and **l^{y}* to /n/ and /l/, respectively: **ñawi* > *nawi* (Huaraz); **l^{y}asa-q* > *lasa-q* 'sad' (Huari); (d) depalatalization of **č* > /c/: **čaki* > *tsaki* 'dry' (Ancash); (e) deretroflection of **ç* > /č/: **çaki* > *čaki* 'foot' (Ancash). (Examples are from Parker 1969e and Parker and Chavez 1976.)

Inga participates in none of these innovations and again conforms to the phonological parameters of the QA dialects with respect to these criteria.[18]

Northern Peruvian and Ecuadorian-Southern QA. Of the split between Northern Peruvian and Ecuadorian-Southern, Parker observes, "A single sound change attributable to Ecuadorian-Southern is the merger of [retroflex] **ç* > č. The only other innovations involve an elaboration of the person suffix system. . . ." (1969d:154). The latter reference is to (1) the adopting by PEcS of the nominal pluralizer **-kuna* as a verbal plural marker in the 1-exclusive and 3rd persons; and (2) the modification of the 2nd person plural verb form through the addition of **-čik*. The Northern QA dialects (Ferreñafe and Cajamarca), on the other hand, use **-l^{y}apa* 'all' to mark plural on the verb and the Lowland Peruvian dialects (Amazonas and Chachapoyas) use reflexes of *-šapa* 'each': Cf. Ferreñafe *parla-ša-yki-llapa* (speak-FUT-1SUBJ/2OBJ-PLUR) 'I will tell you (pl.)', Amazonas *rura-rka-n-sa* (make-PAST-3-PLUR) 'they made'. Also, NP preserves the PQ **q* ≠ **k* contrast, found in Southern QA but lost in Ecuadorian.

Where NP and Amazonas LP preserve *č ≠ č, Inga agrees with the Ec-S group in the merger of *č > č, as well as in having *-kuna* as a verbal plural marker. Furthermore, it is in agreement with the Ecuadorian subgroup of dialects in the loss of the contrast *q ≠ *k.

Lowland Peruvian. Lowland Peruvian (San Martín and Amazonas) differs from Northern Peruvian chiefly in the loss of the *q ≠ *k contrast and the use of the use of *-šapa* (rather than *-l'apa*) in the plural verb; and from Ecuadorian-Southern in the preservation of the *č ≠ č contrast (Amazonas) and the use of reflexes of *-šapa* rather than *-kuna* in the plural verb: Cf. Amazonas *rura-rka-n-sa*, Inga *rura-rka-n-kuna* (make-PAST-3-PLUR) 'they made'. Additionally, Ecuadorian (except Pastaza) has replaced the historic nominal possessive suffix system with synthetic possessive pronouns. LP shares a number of phonological traits with Ecuadorian, among them the voicing of stops after homorganic nasals, the voicing of /k/ before sonorants and fricativization of /k/ syllable-finally. Nevertheless, the aformentioned characteristics of LP suffice to set it apart from Ecuadorian.

Colombian Inga shares each of the defining characteristics of Ecuadorian-Southern, and specifically Ecuadorian, just discussed. Compare the following items from Inga, Cuzco (Ec-S) and Olto, Amazonas (LP):

	Ec-S	Inga	Cuzco	Amazonas	Gloss
(12)	*č, *č } > č {	(12a) *čaki*	(b) *čaki*	(c) *čaki*	'foot'
		(12a') *čaki*	(b') *č'aki*	(c') *čaki*	'dry'
(13)	*-*kuna*	(a) *rurankuna*	(b) *ruwanku*	(c) *ruransa*	'they make'
(14)	*-*čik*	(a) *rurangiči*	(b) *ruwankičiq*	(c) *rurankisa*	'you (pl) make'

(Glottalization of /č/ in Cuzco is not apparently related to retroflection in PQ.) Inga also shares with Lowland Ecuadorian, Northern Peruvian and some Southern dialects (e.g. Ayacucho, Argentina) the lack (or historical loss) of glottalized obstruents /p', t', k', č'/ found in Cuzco and Bolivian, and the aspirated obstruents /p^h, t^h, k^h, č^h/ found in these and also in Highland Ecuadorian.

Inga and Ecuadorian. Inga shares with Ecuadorian the following significant morphological characteristics which serve to distinguish this subgroup of dialects from other members of the Ec-S group (such as Cuzco): The loss (except in Pastaza) of the personal possessive suffix system, replaced in Ecuadorian by possessive pronouns; the simplification of the verb morphology through the loss of the distinction between first-person plural inclusive (*1+*) and exclusive (*1-*); the loss of syncretistic subject/object suffixes and the loss of a considerable number of modal and derivational suffixes (innovations shared by Pastaza).

In addition, there are phonological criteria which distinguish Ecuadorian from other QA varieties. Seven phonological innovations attributed by Parker (1969d) to the Ecuadorian subgroup are:

(15) The loss of glottalized coarticulation: C' > C.
(16) Deaspiration of non-initial aspirates: C^h > C / # (C)V(C)___.
(17) The loss of the velar-postvelar contrast: q$^{<h>}$ > k$^{<h>}$.
(18) The spirantization of syllable-final /k/: k > x / ___ {p, t, k, s, š, #}.[19]
(19) The voicing of /k/ before sonorants: k > g / ___ C$_{[+son]}$
(20) The voicing of stops after nasals: p, t, k, > b, d, g / {m, n, ñ }___.[20]
(21) The deletion of /y/ following /i/: y > ∅ / i___.

With respect to (15) and (16), in Inga, Lowland Ecuadorian and Lowland Peruvian, these processes are carried a step further to the elimination of all laryngeal contrast in all positions (if, in fact, they ever existed in these dialects). With respect to (21), in the Santiago and Aponte Inga dialects the sequence *-iy* in infinitives (and nominals based on the infinitive) is phonetically realized as [íy] or [éy]. On the other hand, San Andrés and Bajo Putumayo Inga have (21). It is possible that in Santiago and Aponte the infinitive sequence *-iy* was diphthongized to [ey] by the lowering of /i/ to [e] (characteristic of these dialects) before (21) became an established phonological process. It is equally possible that it is an innovation in these dialects through analogy with other infinitives in *-ay* and *-uy*. Cf. Santiago *apa-y* [apáy] 'to carry', *api-y* [apéy] 'to seize', but San Andrés *apí* [apí:] 'to seize'.

Colombian Inga accords with the Ecuadorian branch of Ecuadorian-Southern QA, then, with respect to the following shared phonological innovations:

(15') loss of glottalized coarticulation: **C' > C**;
(16') complete absence of aspiration of obstruents: **C^h > C**;
(17') loss of the phonological contrast ***q ≠ *k**,
(18') fricativization of syllable-final /k/,
(19') voicing of /k/ before sonorants,
(20') voicing of stops (but not all obstruents) after homorganic nasals.[21]

As mentioned, the absence of (21) in Inga may be due either to the timing of the innovation in Ecuadorian or else to a subsequent analogical development in Inga.

<u>Highland and Lowland Ecuadorian.</u> The Highland Ecuadorian (HEc) dialects such as Imbabura, Pichincha, etc., spoken in the Andes, are distinguishable from those spoken in the eastern lowlands around Limoncocha, Bobonaza and Tena. The chief phonological difference is the merger of aspirated obstruents with their simplex counterparts in Lowland Ecuadorian (LEc) **C^h > C**. This innovation is shared by Inga. Another general characteristic of the Lowland Ecuadorian dialects is a tendency towards the phonological reduction of suffixes. For example, HEc *-nkuna/-nguna* '3pl (VERB)' is reduced to *-naun* in Bobonaza and Tena (LEc) and to *-nun* in Limoncocha; continuative aspect *-ku* in Inga, *-xu* in Imbabura (HEc), becomes *-u* in Bobonaza and Tena; after vowels, genitive/purposive *-pa(x)* is lenited to *-wa* and locative *-pi* to *-i* in Bobonaza and Tena (Orr and Wrisley 1981:156-63). Inga has in common with LEc the loss of final /n/ in *-wa* COMITATIVE and *-ma* 'GOAL' and the loss of final /x/ (< ***q**) in *-pa* 'PURPOSIVE' and *-ra* 'IMPERFECTIVE' (fossilized in Inga). Compare these Inga and LEc suffixes with Imbabura (HEc) *-wan, -man, -pax and -rax*. Other sporadic similarities with Inga exist, such as the relexification of PQ **ñan* 'road' + **-pi* 'LOC' > Lowland Ecuador, Pastaza and Inga *ñambi* 'road'.

These shared innovations raise the possibility of classifying Inga with this group. However, while the possibility of a common predecessor cannot be ruled out, if such an affiliation existed , the separation of Inga and the Lowland dialects from a common Highland ancestor would have had to have been almost simultaneous with the arrival of the first Inga speakers in Southern Colombia--i.e., during the last years of the Empire.[22] Historical indications are that Inga has been separated geographically from Ecuadorian stock for at least three centuries (cf. Levinsohn, et. al, 1982:1956; Pazos 1966:6). Also, the Lowland dialects have clearly shared a period of development in relative isolation from other Ecuadorian varieties in which Inga has not participated.

4. Classification of Inga.

Summarizing, there are certain defining morphological features which affiliate Colombian Inga with the QA branch (*Figure 2* below). These are (1) the nominal inflectional suffixes *-pi* 'LOCATIVE' and *-manda* 'ABLATIVE' and (2) the verbal inflectional suffixes *-ni* '1s subject' and *-wa* '1s/pl object'. The QB dialects are characterized by reflexes of *-čaw* 'LOCATIVE' and *-pita* 'ABLATIVE', in the first case, and phonemic vowel length *(V)-:* and reflexes of *-ma(a)* in the second case.

A second group of traits affiliates Inga with the Ecuadorian-Southern group of QA. Among these are (1) the adaptation of the nominal plural suffix *-kuna* to the verb system as a plural subject and object marker (*Figures 2 and 3*) and (2) the merger of PQ **ǯ > č* (*Figure 4*). This contrasts with both the QB group and with other QA subgroups such as NP and LP. QB has no standardized method of marking plural verbal subjects or objects, NP employs reflexes of **-p'apa* 'all', and LP employs **-šapa* 'each' to mark verbal plurals. QB, NP and LP also retain the opposition **ǯ ≠ č*.

Third, the Ecuadorian dialects and Colombian Inga generally agree both in having substantially simplified the noun and verb suffix systems and also with respect to the specific set of suffixes which have been lost or simplified: (1) the nominal personal possessive suffix system (lost); (2) the verbal subject-object person-number system (simplified); (3) the modal system (reduced). Also, Inga agrees with Ecuadorian in having (4) the reinterpreted different-subject adverbial subordinator *-gpi* rather than *-pti* or some phonologically reduced reflex of this (*Figure 3*).

Inga also shares with the Ecuadorian group certain phonological innovations, among them (1) the leveling of the historic **k ≠ *q* contrast, (2) voicing of /k/ before sonorants and (3) voicing of stops after homorganic nasals (see *Figure 4*). Inga also shares with Lowland Ecuadorian (4) the loss (or historical absence) of contrastive aspiration *C^h > C*. Some or all of the latter are shared with Lowland and Northern Peruvian, as well, but other traits already discussed preclude Inga from being classed with these groups.

However, certain other innovations set Inga apart from other varieties of Quechua in the Ecuadorian group. Among these are (1) the merger of **š > s* (where other Ecuadorian has *š ≠ s*); (2) the novel conditional morpheme *-ntsa* or *-ntra* (possibly from third-person **-n + *-ǯa* 'CONJECTURE'); (3) the unique form of several relexified items such as *časa* 'thus' and *čara* 'still' (cf. Imbabura *čašna* and *-rax* 'IMPERF') and (4) the peculiarly Inga usage of *nispa* 'saying (SAME SUBJ)' and *nig(pi)* 'saying (DIFFERENT SUBJ)' as discourse connectors with the force of 'then' or 'next'.[23]

In view of the linguistic affiliations among Colombian Inga and other dialects of Quechua discussed here, what is known of the redistribution of the Quechua-speaking populace during the late Imperial and early Colonial period, and what is hypothesized about the migrations of Quechua-speaking peoples in pre-Imperial times based on linguistic and archeological evidence, the following outline of the events leading up to the establishment of Inga in Southern Colombia is proposed (cf. *Figure 5*):

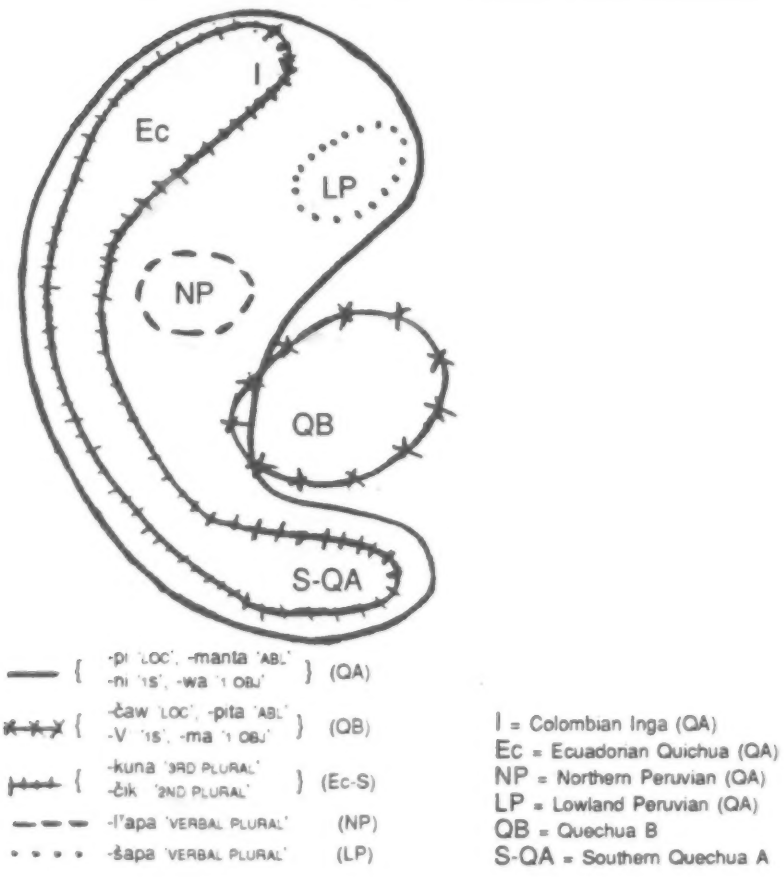

Figure 2. Principal morphological isoglosses which distinguish major Quechuan dialect groups and which affiliate Colombian Inga with Quechua A and Ec-S.

(1) The initial split of PQ, spoken in Central or North Central Peru, into Proto-QA and Proto-QB takes place by the ninth century A.D., and quite probably some time before it (Parker 1969a).

(2) PQA splits again soon thereafter into a Northern group (NP) and Proto-Ecuadorian-Southern (PEc-S). These first branchings can probably best be understood as the result of early migrations from the cradle of the Quechuan-speaking area into surrounding areas. These migrations may have been associated with a pre-Incan culture, the Wari, centered around Ayacucho from the 4th to the 10th centuries AD (Landerman 1976:225; cf. Carrillo E. 1986:41).[24]

(3) Speakers of QB remain in the central Peruvian Highlands, where geographic isolation due to the rugged Andean terrain plays a key role in the linguistic divergence of the QB lects. Rather than through migrations, linguistic

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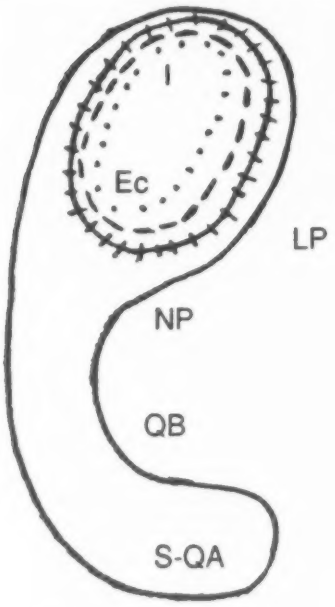


-kuna '3-PLURAL' / -čik '2-PLURAL' (Ec-S)
-pa(k) °-paq 'GEN' / °-pa 'PURP' (Ec)
POSSESSIVE SUFFIXES > Ø (Ec)
°-pti > -kpi 'DIFF SUBJ' (Ec)

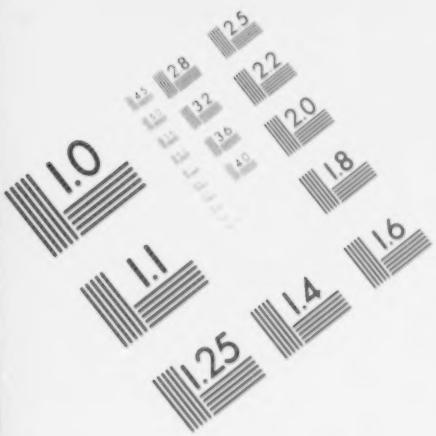
I = Colombian Inga (QA)
Ec = Ecuadorian Quichua (QA)
NP = Northern Peruvian (QA)
LP = Lowland Peruvian (QA)
QB = Quechua B
S-QA = Southern Quechua A

Figure 3. Principal morphological isoglosses which distinguish the Ecuadorian sub-group from Southern, Northern Peruvian and Lowland Peruvian, and which affiliate Inga with Ecuadorian (not to scale).

innovations from different epicenters spread through the area in successive waves. Later QB will also be subject to influences from QA as a result of the prestige of Imperial Cuzco Quechua.

(4) During early migrations of Quechua-speaking peoples, before moving north into Ecuador and south into Cuzco and contiguous areas, speakers of Ec-S come into contact with Jaqaru-Aymara speakers, where phonemic glottalization and aspiration are borrowed into the language, according to Parker (1969a). With the rise of Imperial Cuzco, Southern Quechua is dispersed through a still wider area--much of Bolivia, for example--and Cuzco Quechua exerts a standardizing influence on other Quechua dialects. As a result the affected dialects appear to be less divergent (from Cuzco and from one another) than in fact they are.

(5) QA dialects are introduced into the Northern Peruvian Lowlands, in part, perhaps by refugees from Inca rule during Imperial times (15th century AD).



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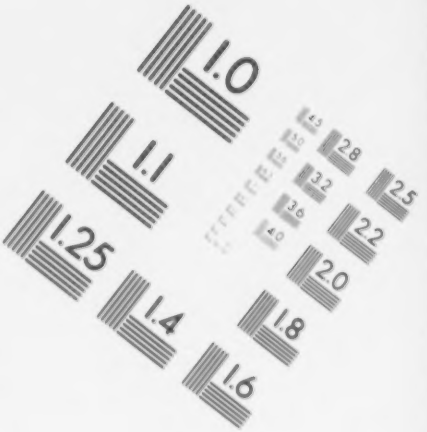

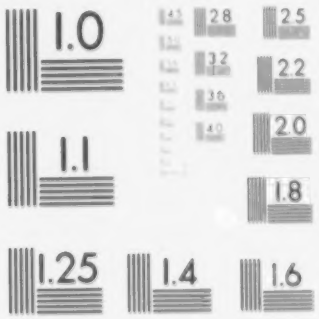

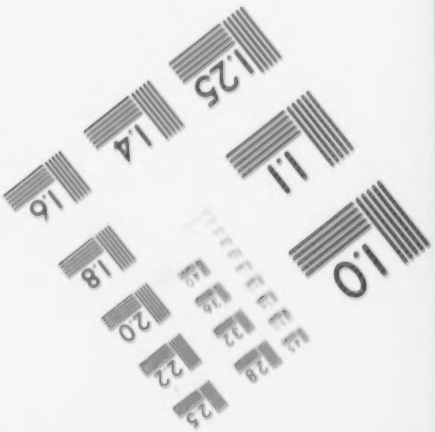

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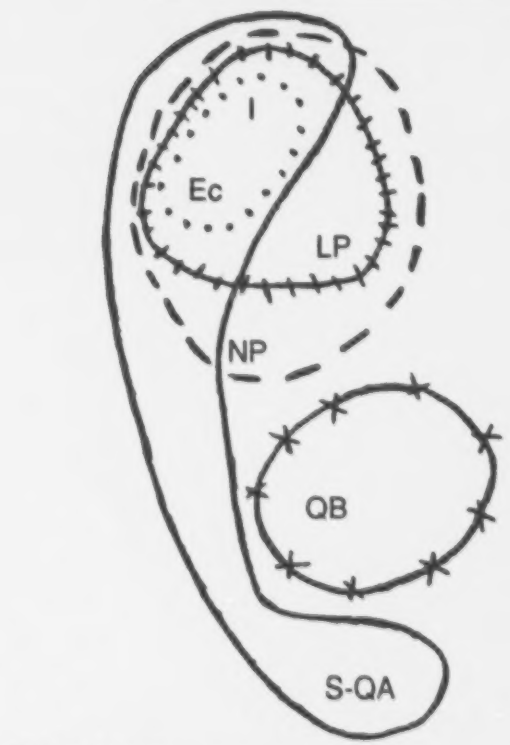

*-iya-, *-awa- > -a-	(QB)	I = Colombian Inga (QA)
*ç > č	(Ec-S)	Ec = Ecuadorian Quichua (QA)
C_{obs} > [+Vce] / N ___	(Ec, NP, LP)	NP = Northern Peruvian (QA)
*q > k	(Ec, LP)	LP = Lowland Peruvian (QA)
C' > C^h	(Ec)	QB = Quechua B
		S-QA = Southern Quechua A

Figure 4. Principal phonological isoglosses which distinguish the Ecuadorian sub-group from Southern, Northern Peruvian and Lowland Peruvian, and which affiliate Inga with Ecuadorian (not to scale).

(6) From the Ecuadorian Highlands, Quichua spreads into the lowlands to the east and north into present-day Colombia as far as Pasto, largely due to Imperial Inca expansion (15th century). Ecuadorian Quichua comes into renewed contact with Southern QA under the dominion of the Empire.

(7) During the final days of the Empire and the early Colonial period (16th century) the range of Quechua continues to expand through warfare, commerce, colonization, missionization, etc. These extended regions include what are now Northern Argentina and Southern Colombia. In Colombia this introduces the Inga language and *Anakona*, a variety of Quechua (now extinct) spoken during the colonial period by a group called by the same name.

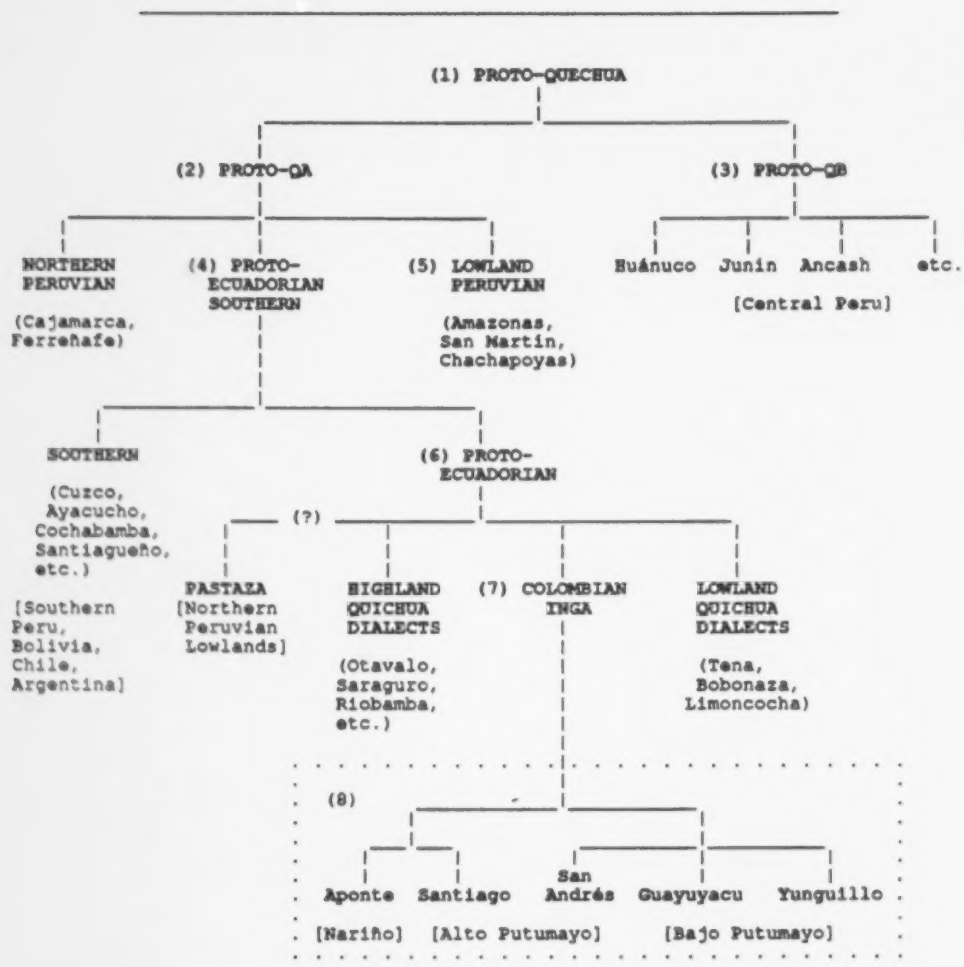

Figure 5. Historic development of Colombian Inga with respect to the major branches of Ecuadorian and Peruvian Quechua.

(8) Dialects of Inga emerge, in turn, as groups of Inga speakers leave Santiago and other settlements in the Sibundoy Valley (Alto Putumayo), their first homeland in sixteenth-century Colombia, and settle first the Bajo Putumayo to the southeast of Sibundoy and later the Aponte Reserve to the north. Shortly thereafter a group which had migrated earlier to the Bajo Putumayo returns to the Sibundoy Valley and establishes the village of San Andrés and its environs.

In conclusion, Colombian Inga is affiliated with the Ecuadorian sub-group of the Quechua A branch of the Quechuan language family. However, Inga constitutes a distinct subdivision within this group on the basis of independent innovations in the phonology, morphology, syntax and lexicon through several centuries of development in relative isolation from other varieties of Quechua.

NOTES

1. *Quichua* is simply the Ecuadorian variant of the word *Quechua*, originally the name of just one of the Quechuan speaking tribes in Southern Peru which affiliated itself with the Cuzco hegemony early on (Lumbreras 1974:217). There is no vowel phoneme /e/ in the earliest forms of the Quechuan languages, but in many varieties the phoneme /i/ developed an allophone [e] when it is contiguous to the postvelar stop /q/. The Southern Quechuan form of the word is thus /qʰičwa/, pronounced [qʰečwa]. In Ecuadorian, where the velar-postvelar contrast has been neutralized, the vowel is not normally lowered and is articulated as [i]: [kičwa].

2. When the Spanish arrived, the Empire was already in the throws of civil war. The two sons of Huayna Capac, the late emperor, were vying for power. Huascar, the legitimate heir to the imperial throne defended Cuzco, the traditional seat of the Empire. Atahualpa, the usurper, garnered power in Quito, where his father had made him regent, but not emperor.

3. Roughly half the populations of modern Ecuador, Peru and Bolivia are Quechua speaking, and Quechua is an official language of Peru, alongside Spanish.

4. Belalcázar pacified the Ecuador-Colombia area and is credited with the establishment of the cities of Guayaquil and (colonial) Quito in Ecuador, and Pasto and Popayan in Southern Colombia. (See, for example, Garcilaso de la Vega [1966:154-168].)

5. There are also varieties of Quechua called *Inga* < **inka* 'Inca' spoken in Ecuador and Peru--e.g., the Quechua of Pastaza, Peru (Landerman 1973)--but the similarity in name signifies no closer relationship to Colombian Inga than many other Ecuadorian and Peruvian dialects termed Quichua, Runa Simi, etc.

6. This suffix has no real translation equivalent in English. It indicates a close relationship between the various nouns in its scope. For example, the Incas called their empire *Tawantinsuyu* /tawa-ntin-suyu/ (four-ASSOC-area). That is, the four zones were not in a haphazard relationship, but formed the *four quarters* of the empire. Similarly, Inga *iscandi*, from *iscay* 'two' + *-ndi* 'ASSOC', means 'both, the two of them'. Extensions of this use of the associative suffix are found in Inga *mamandi* 'his/her own mother' and *cayandi* 'the next day' (< *caya* 'tomorrow').

7. Cuzco genitive *-q* [x̣] derives from PQ genitive **-pa* through vowel loss:

-pa# => -p#

followed by syllable-final fricativization:

p# => [p̣] => [x̣]

(Syllable-final /q/ is phonetically realized as a uvular fricative in many other

Southern QA dialects as well.) Reflexes of **-pa* are found in Southern Quechuan dialects variously as *-q, -p, -qpa* (by reduplication), and *-pa*.

8. All Huánuco data are from Weber (1978, 1983). The Cuzco data are from various sources, principally Cusihuaman (1976). All Inga examples are from Levinsohn (1976, 1977, 1979), or from Inga primers and readers published by the Summer Insitute of Linguistics, Colombia Branch, edited by Levinsohn.

9. Parker (1969c:193) attributes to Proto-QA the innovation **-ma > -wa*.

10. The directional suffix *-mu* occurs only with motion verbs in Inga, with the meaning '(towards) here'. It has the same meaning in Cuzco, Huánuco, and other QA and QB dialects when affixed to motion verbs.
However, in Southern QA and in QB the suffix *-mU* can also occur with non-motion verbs, in which case it has the meaning 'go and (VERB)', or 'go (VERB) and come back'. In Inga and Ecuadorian this use of *-mu* has been replaced by a special paraphrastic construction made up of the agentive form of the matrix verb plus inflected forms of the verbs *riy* 'go' or *samuy* 'come'.

11. Upper case /U/ and /I/ represent morphophonemes which are normally realized as /u/ and /i/ but which are lowered to /a/ in certain morphophonemically conditioned environments.

12. A possible factor in the lexicalization of *ña* is its similarity in form to the Spanish free morpheme *ya* 'already'. Quechuan speakers have not hesitated to incorporate Spanish borrowings into the language, especially adverbs and conjunctions. E.g., in Inga are found *timpu* 'already' (< Sp *tiempo*), *lim* 'completely' (< Sp *limpio*), and even the morphology is not exempt: e.g. *-hora*, 'when (subordinating temporal complementizer)'; *-ido*, as in *rigsido* 'acquaintance' (< *rigsiy* 'to recognize').

13. The imperative suffix *-g* in this form is a phonological variant found in Guayuyacu Inga. The other dialects have *-y*, as do most Quechuan varieties.

14. Grouped by Parker (1969a) with the Northern Peruvian group (and by Torero with the Ecuadorian group), more recent data indicate that the Lowland Peruvian dialects of San Martín, Amazonas and Chachapoyas in fact constitute a distinct group (cf. Grimes 1985). For example, they share, over against the Northern group, the loss of the PQ contrast **q ≠ *k* and the use of **-šapa* 'each' as a verbal plural marker, where NP has **-l'apa* 'all'. Lexicostatistical analysis also shows the Lowland Peruvian dialects to be less remote from other QA varieties than are the Northern Peruvian dialects.

15. Pastaza Quechua is grouped by Parker with the Northern Peruvian group, together with the Lowland Peruvian dialects of Chachapoyas and Amazonas. However, it has far more in common with the Ecuadorian group than it does with either the Northern Peruvian or the Lowland Peruvian dialects. For example, Pastaza does not preserve the *ξ ≠ č* contrast found in both NP and LP and it has adopted the nominal pluralizer *-kuna* as a verbal subject and object plural marker, just as the Ecuadorian (and Southern) dialects do. The only way in which Pastaza differs significantly from the Ecuadorian dialects is in the preservation of the nominal possessive suffix system. This can be interpreted to mean that it is the most conservative of the Ecuadorian dialects in this respect. For these reasons I have placed Pastaza with the

Ecuadorian Quichua group, but, it being outside the scope of the present work, make no attempt to subclassify it further.

16. Data used in this section are from the following sources: Huanca Quechua, Cerrón-Palomino (1976); Amazonas Quechua, Chaparro (1985); San Martín Quechua, Coombs, et al. (1976); Pastaza, Landerman (1973); Lowland Ecuadorian Quichua, Orr and Wrisley (1965); Ancash and Huailas Quechua, Parker (1976), and Parker and Chavez (1976); Imbabura Quechua (HEc), Stark and Muysken (1977).

17. Orr and Longacre generally accept the classification system of Torero (1964), but differ from many other Quechuanists in positing a genetic relationship between Quechua and Aymara traceable to a common ancestor, Proto-Quechumaran, and in reconstructing a three-way contrast in Proto-Quechua among simple, aspirated and glottalized obstruents: *C, *C^h, *C'. Parker attributes aspiration and glottalization in Quechua to borrowing from Jaqu-Aymaran substrates, and does not recognize a Proto-Quechumaran ancestor.

18. The merger of *ʧ and *č in Ecuadorian-Southern QA (discussed in the next section) produces a result similar to the QB deretroflection process (e) above in that Ec-S reflexes may have /č/ where the proto-language, some QB and some Northern and Lowland Peruvian dialects have /ʧ/ (cf. the Cuzco (Ec-S) and Amazonas (LP) examples in (12) below). However, the Ec-S process is a merger which neutralizes the primitive opposition *ʧ ≠ *č, whereas the contrast is often maintained in QB reflexes such as č ≠ *c. Cf. Ancash *čaki* 'foot', *tsaki* 'dry', whereas Inga *čaki* 'foot' is homophonous with *čaki* 'dry'.

19. This does not strike me as a uniquely Ecuadorian development. Spirantization of syllable-final /k/, /q/ and even /p/ are common in Southern Quechua dialects such as Cuzco and Bolivian.

20. In Inga the preceding nasal must be homorganic, since forms like *yamta* 'firewood' occur where the nasal is not homorganic and the following stop is not voiced (Cf. Imbabura *yanda* 'firewood'). Also in Inga, but not necessarily other Ecuadorian Branch dialects, the affricate /č/ is excluded from the rule and does not become voiced in this environment: *punča* 'day'. Cf. Imbabura *punja* 'day'.

21. While this rule is exceptionless in Inga in words of Quechua origin, an obstruent voicing contrast has been introduced--or is being introduced--to many dialects of Quechua through contact with Spanish and indigenous substrate languages. Thus, Inga *manga* 'pot' < PQ *manka 'pot' shows the historic voicing of PQ *k after [ŋ], while *banco* [baŋko] 'bench' < Sp *banco* evinces the retention of the voiceless velar [k] in the same environment.

22. The source of the modern Lowland dialects may be the revolt of highland tribes like the Cañaris against Atahualpa mentioned by El Inca Garcilaso (see *Section 1*), at precisely the time of the arrival of the Spanish. It is also likely that the ancestral Ingas came from a highland region, since, if the Ingas were translocated by the Spanish, it was in the Andes that the Spanish began their conquest of the area and only later did they explore the lowland regions; and if the Ingas were settled in Colombia by the Incas, it was the

policy of the Incas to transport groups only to areas having geographic and climatic conditions similar to their place of origin.

23. A parallel connective *nispa-qa* 'then' is found in Cuzco Quechua, but the corresponding form *čay-manda* 'then' in Ecuadorian dialects other than Inga is based on the same root as Inga *časa* 'thus', *čara* 'still', etc.

24. The traditional view is that Quechua was promulgated almost entirely by Imperial influence. The linguistic data suggest that in fact Quechua was spoken in a wide area before the time of the empire. Parker reflects, "I feel it is entirely reasonable to infer from linguistic evidence that the Inca Empire represented the last in a series of Quechua migrations" (1969a:67). Comparing archeological findings and dialect geography, Landerman (1976:225) speculates that two previous imperialistic Andean cultures, the Wari and the Chavín, which antedate the Inca Empire, were also Quechua speaking.

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PROTO-ALGONQUIAN VERB INFLECTION

Paul Proulx

Abstract: Proto-Algonquian had 6 or 7 orders (morphological types) of verbs. The potential order had three modes, the subordinative two, and, by one interpretation, the conjunct had four. By another, all conjuncts are participles in the protolanguage. Evidentials include an attestive, suppositive, dubitative, and perhaps a recollective. Only a few obviative and inanimate subject endings are as yet distinguished from animate proximate ones, but indefinite subject endings are much better distinguished from definites in the protolanguage than in its daughters.

Introduction

Four decades after Bloomfield's sketch of PA (Bloomfield 1946), we still lack full reconstructions of the verb inflection of the nonaffirmative, potential, and even the conjunct and imperative. Moreover - aside from scattered references, discussions, and isolated reconstructions of some endings - work since 1946 has been limited to the independent and subordinative orders (Goddard 1967, 1974, and Proulx 1980b, 1982, 1984b).

The present paper is intended to fill the gaps in the verb inflection presented in Bloomfield's Sketch. It is based on a large body of data not considered by Bloomfield (who used only four languages). Most of the crucial new information comes from my fieldwork on Micmac, which preserves a great deal of the PA system otherwise surviving only in Fox and Kickapoo. But other vital evidence is provided by Goddard's documentation of Delaware, Leman's description of Cheyenne, and the Passamaquoddy-Maliseet verb paradigms collected by Leavitt and Francis, and the writings of French missionary linguists (notably LeBoulanger's Illinois paradigms, Cuoq and Lemoine's grammars of Algonquin, and Mathevet's notes on Loup).[1]

Time has also provided something else which was unavailable to Bloomfield: an Algic perspective. In the light of the recent work on Proto-Algic verbs (Proulx 1985a), we can see Proto-Algonquian not so much as a beginning point, a uniform system which later becomes differentiated and more irregular - but as a midpoint in a millennial evolution, full of its own archaisms and as yet uncompleted innovations.[2]

Kansas Working Papers in Linguistics, 1990, Vol.15,No.2, pp. 100-145.

Overview

The classification of verbs proposed, with their characteristic inflectional elements, is as follows:

ORDERS	MODES
Type 1 ('we [inc.]' = *-ankw, etc.):	
(1) conjunct (*-[y]-)	simple indicative (*-i, *-e:)
	changed indicative (*-i, *-e:)
	iterative (*-ili, *-e:li)
	participle (*-a, etc.)
(2) nonaffirmative (*-w...)	[same as conjunct]
(3) potential (*-[h]k)	neutral (*-a)
	prohibitive (*-i, *-e:)
	delayed imperative (*-i, *-e:)
(4) imperative [including injunctive] (*-e)	
Type 2 ('we [inc.]' = *ke-...-naw, etc.):	
(5) independent (*-Hm, *-w)	
(6) subordinative (*-nay)	indicative (*-i)
	iterative (*-ali)
(7) distant (*-ntay) [?]	

The main structural opposition is between type 1 verbs [with suffixes only, and a common set of person suffixes] and type 2 [with prefixes as well as suffixes, and a contrasting set of person suffixes]. These types nevertheless share a number of morphological

features (sometimes with minor distributional or phonological differences). These include THEMATIC ELEMENTS, OBVIATING ELEMENTS, and EVIDENTIALS. In some languages of the Lake-Cheyenne group, a NEGATING element is also shared.

Themes: While thematic elements are shared, they have partly different distributions and uses for the two verb types: in type 1 verbs, themes in *-eɬ are used with all primary objects including a second person, *-i with first person ones not including a second person, *-a: with third person ones when the subject is more topical than the object, and *-ekw with third person ones when the object is more topical than the subject. That is, the choice of *-a: versus *-ekw depends on discourse considerations, and both are limited to third person primary objects.

In type 2 verbs, however, *-a: 'direct' is used in all forms with first or second person subjects and third person primary objects, *-ekw 'inverse' in all those with third person subjects and first or second person objects. For example, compare the following forms of the conjunct simple inaccessible ('subjunctive') with those of the independent:

TA INVERSE	INAN. SUBJ.	INDEF. SUBJ.	P. OBJ.
conj.			
...-ite:	...-ike:	...-inke:	1
...-eɬke:	...-eɬke:	...-ɬenke:	2
...-ekwete:	...-ekwete:	...-ente:	3
indep.			
n-...-ekwa(ki)	n-...-ekwe	n-...-eko:	1
k-...-ekwa(ki)	k-...-ekwe	k-...-eko:	2
...-ekwa	...-ekwa	...-a:wa	3

Thus, one would say *wa:pamite: 'if she sees me' but *newa:pamekwa 'she sees me'.

Obviation: In the conjunct, OBVIATIVE SUBJECTS of intransitive verbs require *-(i)li between the stem and third person *-t (Bloomfield 1946:sec.46). There is some evidence that this pattern may have been followed in 'OBV-1' and 'OBV-FURTHER OBV' forms, though these could be later analogical extensions. Possible reconstructions are:

(1a) *-ilit [?] 'OBV-1': K -init, and optional n-dialect Cree -init.

(1b) *-a:lit [?] 'OBV-FURTHER OBV': F, O -a:nit, Moose Cree -a:lit.

Analogical extension from intransitives to (1a) would be easy, as 1-object themes generally inflect much like intransitive stems. A similar extension to (1b) would follow from the parallel between transitive verbs with inanimate objects (which inflect like intransitives) and those with animate ones.

Fox and Cree use the obviative subject suffix in the independent order, seemingly reflecting *-iliwali 'OBV-1', but Malecite, Menominee, Montagnais, and Ojibwa use only terminal *-ali to mark the obviation [e.g., Mt takushinua 'she (OBV) arrives', O nɨmpwan 'she (OBV) dies']. The latter usage, reflecting the nominal origin of the independent in structural opposition to the conjunct, is surely that of PA.

An OBVIATIVE OBJECT (in first or second person subject forms) is marked by *-em A302 in the conjunct and perhaps the independent as well. Thus, we have conjunct *-emak A305 and independent K ne-...-emaa, C ni-...-ima:wa [with obviative -a], Ch ná-...-amóho [with obviative -ho]) '1-OBV'. This element is the only Algonquian inflectional suffix I know of to precede the thematic element. For example, consider: Ch ná-...-amóne '12-OBV' (beside ná-...-óne '12-3'), mC ne-...-ima:nawa '12-OBV' (beside ne-...-a:naw). In Plains Cree, where some of the conjunct endings are reshaped, this prethematic distribution is introduced into the conjunct: pC -ima:yahk '12-OBV' (with -im before thematic -a:). Similarly in Moose Cree, where *-em is extended to obviative SUBJECT forms, e.g., -imisk 'OBV-2' (beside -isk '3-2'), where -is 'thee' is from *-eɬ.

While the daughter languages insert *-em in the same position (i.e., before the thematic element) in the independent order, the endings are otherwise simply those of the nonobviative direct for the respective language - which differ in part for each language. It is a moot question whether the obviative object endings are parallel analogical innovations in the independent (modeled on the conjunct), or are of PA antiquity and have simply been reshaped along with the direct endings (and in accord with the general treatment of obviation in each language).

The distribution of *-em in PA is uncertain, but it is most widely attested before the conjunct ending *-ent.

(2) *-ement 'X-obv.' (F, K -emet, Algonquin -imintc (Lemoine 1911:tables), Plains and Moose Cree -imiht, M -emeht).

The remaining conjunct endings including *-em are attested only

in Cree and Kickapoo, and could be analogical extensions. They are:

(3) *-emak '1-obv.' (K -emak, pC, mC -imak).

(4) *-emat '2-obv.' (K -emat, mC -imat).

(5) *-emakent '1p-obv.' (K -emaket, mC -imakiht).

(6) *-emankw '12-obv.' (K -emakw, mC -imahkw).

(7) *-eme:kw '2p-obv.' (K -emeekw, mC -ime:kw).

The corresponding independent order endings have *-em in Cree and Cheyenne, as we have just seen, but it isn't clear if these date back to PA.

The Pre-PA history of obviative subject *-(i)li is not fully known. Nevertheless, it is surely somehow related to terminal *-ili 'OBV sg.' (Proto-Algic #217). Obviative object *-em continues the derivational final *-Vm 'relational' (Proto-Algic #191), which signals an extra +HUMAN third person involved. The probable path of evolution is by the narrowing in this context of 'extra third person involved with object' to 'possessor of object involved', implying 'obviative possessed object involved' (since a TA verb requires an animate object). That is, possessor ascension comes to signal obviation. PA *-em A304 of possessed independent nouns and Cree relational endings in -Vm are no doubt also related historically.

Evidentials: Independent verbs have 3 or 4 EVIDENTIAL elements (*-pan, *-sa(pa)n, *-toke:n, *-ĉite: [?]), 2 of which are found in the conjunct as well. They are similar in their distribution, and both take animate third person plural terminal *-iki (typical of the conjunct) rather than *-aki:

	INDEPENDENT	CONJUNCT
attestive	*-paniki	*-paniki
suppositive	*-sa(pa)niki	*-sa(pa)niki
dubitative	*-toke:niki	(nonaffirmative)
recollective	*-ĉite: [?]	(no '3p' reconstructed)

Where the nonaffirmative becomes limited to a negative function, as in the Eastern languages, suppositive endings may tend to occupy some nonaffirmative semantic space - such as marking interrogation, doubt, and the like. For example, Mc nek'msɨp'nax 'was it her (inacc.)?' beside nek'mtɨp'nax 'it was her (inacc.)'. Nevertheless,

this limitation of the nonaffirmative to a negative function also explains why Micmac, despite its general replacement of the independent by the conjunct participle, has preserved the independent dubitative: it had no other verb with core dubitative meanings.

Ojibwa and some varieties of Cree have (A) replaced *-iki with *-aki in the independent dubitative, in conformity with the regular use of that by-form in the independent indicative (and nouns). In a more interesting development, they (B) replace it with pseudo-PA *-i:ki in the independent attestive. Potawatomi, with -(wi)pɨninɨk, appears to have reshaped *-toke:niki to *-toke:naki as in (A), *-paniki to *-pani:ki as in (B) - and then to have blended pseudo-PA *i:[ki] and *[e:]naki, for pseudo-PA *-pani:naki. [This revises my earlier reconstruction (Proulx 1982:table 2), in which the Potawatomi ending was considered archaic.]

The origin of the long vowel in *-i:ki may be an example of a morphologically conditioned harmonic vowel lengthening (and shortening in back-formations) which seems to have once operated in these languages. Other examples of this lengthening are: the preterit conjunct AI ending C -a:pa:n = bO -âmbân = Po -apan '1' [from attestive *-a:n-pan] beside Mc -ap'n-, and negative conjunct bO -issinâwân '1-2' [from *-e-hsi-ɬa-w-a:n, see sec.3.1 below]. An example of shortening is C kimotiw 'she steals' [from *kemo:t- 'steal', see Hockett 1957:no.50].

Another instance of long i: in the independent (with a short counterpart in the conjunct) is the Lake-Cheyenne innovation *-hsi: 'indep. neg.' (I -si, O -ssi:, Po -s:i, Ch -hé), beside *-hsi 'conj. neg.' (I -si, O -ssi). Here *i plus nonaffirmative *-w plus connective *-e contracts in the independent (e.g., O -ssi:min from *-hsi-w-e-Hmena '1p'), but no contraction occurs in the conjunct for lack of a connective *-e (e.g., *-hsi-w-ayenki '1p'). Thus, a long vowel in the independent comes to contrast with a short one in the conjunct.

Similar contraction of the sequence stem-vowel plus *-w plus connective *-e (before *-pan) would give rise to a long vowel there (e.g., *i-w-e-pan-iki ---> *i:paniki) in the independent order - in contrast to the conjunct, where *i-t would not contract as *i-w-e does. This would then produce a marking of the third person independent attestive by length which could be extended to other vowels in an ending (such as *-i:ki). The contraction would not take place in the corresponding endings lacking an evidential (e.g., *V-w-aki).

The history of *-sa(pa)n- is as yet unclear. In Micmac, -s'n and -sɨp'n are rhythmic variants, in Menominee they are positional variants. Until we have full accounts of them in all of the languages, we must assume the two morphs are just peculiar by-forms of a single PA morpheme - but this does not explain their origin.

It is also unclear if the h in D -shan- (a nonfinal by-form of -sa) is the regular reflex of *p in this environment, and whether I -sca (always word final, as in independent ninteperinkisca and conjunct teperinkianisca '[si] Je gouvernerois') is related. Similarly, the final elements in the Cheyenne independent interrogative and dubitative (respectively -he and -hé) are good candidates for relationship with *-san. These are matters for Delaware, Illinois, and Cheyenne specialists to comment on as the overall internal histories of these languages gets further clarified.

Present evidence permits the confident reconstruction of evidential endings only in *-pan 'attested' and *-toke:n 'dubitative'. The AI conjunct and AI independent are:

conj:	PA	ILLINOIS	OJIBWA	CREE	MICMAC
1-	-a:pan	-ampa	-âmbân	-a:pa:n	-ap['n-]
2-	-ampan	-ampa	-amban	-apan	-Ap['n-]
3-	-tpan	-ppa	-ban	-span	-p['n-]
	-kepan		-giban	-kepan	-kɨp['n-]
1p-	-ayenkepan	-ankipa	-ângiban	-a:hkepan	-ekp['n]
12-	-ankwepan	-anc8pa	-anguban	-ahkopan	-Akup['n-]
2p-	-e:kwepan	-ec8pa	-eguban	-e:kopan	-oxop['n-]

ind:	PA NEUTRAL	PA ATTESTIVE	PA DUBITATIVE
1-	n-...	n-...-Hmepani	n-...-Hmetoke
2-	k-...	k-...-Hmepani	k-...-Hmetoke
2p-	k-...-Hmwa	k-...-Hmwa:pani	k-...-Hmwa:toke
12-	k-...-Hmena	k-...-Hmenawepani	k-...-Hmenawetoke
1p-	n-...-Hmena	n-...-Hmena:pani	n-...-Hmena:toke
3-	...-wa	...-wepani	...-wetoke
3p-	...-waki	...-wepaniki	...-wetoke:niki
X-	...-na	...-nayepani	...-nayetoke

A Proto-Algic nasal drops in PA between a long vowel and an obstruent (Proulx 1984a:196), though such a loss is not productive in PA: AI *-a:pan '1' (C -a:pa:n, uD -ap, Mc -ap'n-) beside restored I -ampa, O -âmbân, and optional uD -anɨp. C -apan '2' is presumably analogical, though the reshaping could date back to Proto-Algonquian.

The element *-kw: There is another element found in more than one order of verbs, *-kw. This element comes between a person marker and a following evidential, if any, and is used in forming contrary to fact potentials ('might have, could have'). It is attested in a rather fragmentary way.

The best evidence is from the independent order, where it is found preceding the attestive evidential. Moose Cree has a set of dubitative preterit endings, e.g., -na:wa:kopan '2p' [beside indicative neutral -na:wa:w], with a cognate in Montagnais and a partial one in Unami: Mt tshinipa:na:ua:kupan 'you (pl.) might have been asleep', uD kɨpa:hmwa:kwɨp 'you (pl.) came'. The Unami form is no longer used, having been recorded by early missionaries (Goddard 1969:sec. 5.5.11). Compare also Algonquin -goban, as in sakidjigegoban 'elle aimait autrefois' (Lemoine 1911:12), and ockina8ensigoban 'feu Ockina8ens (que je n'ai pas connus)' [Cuoq 1866:42] - a kind of distant inaccessible (used for remote time and deceased persons the speaker never knew) beside the simple inaccessible -ban (used as a preterit and added to the names of known deceased people).

Unami also has *-kw followed by the suppositive element: kɨpa:hmwa:kwɨsa 'you (pl.) have come'. As in the previous Unami example, it seems to have been a free variant of the ordinary '2p' ending, having lost its original meaning. It also turns up in Unami in a conjunct form, kéko e:li:namá:k:wɨp 'that which I have seen', where the ending -a:kwɨpan is in free variation with -a:n plus -pan (Goddard 1969:sec. 5.5.26). This apparent marriage of *-kw with evidentials perhaps grows out of their use (almost always) for actions in a relatively distant or unknown past.

PA *-kw has a by-form *-a:kw (with link *a:), attested in Montagnais and Micmac. Thus, there is a set of dubitative preterit conjunct endings in Mt -a:kue (*-a:kw plus *-e:li) used in contrary to fact clauses: ninipa:ia:na:kue 'if I had been asleep', nipa:ta:kue 'if she had been asleep', ua:pama:ta:kue 'if she had seen her' (Clarke 1982:93, 118).

In Micmac, beside -s '3' from the PA potential unreal, there is a contrary to fact potential -sox [Pre-Mc *-sa:kw]: wtaywasox 'she would have, or could have frightened him or them', mu s'muli:tisox 'they wouldn't have fed you'. There seems to be no way to tell whether

*-a:kw originated in the conditional (conjunct) clause as in Montagnais, or in the matching result (potential) one as in Micmac. Perhaps it should be seen as setting the mood for the whole sentence.

Micmac -ox from *-a:kw is used only in third person forms. Elsewhere in the potential order, it is supplanted by Mc -p'n (e.g., p'mu:piyekap'n 'I'd have carried her on my back'). Although they may be related historically, in Micmac this element differs from attestive -p'n in two ways: semantically, and in never dropping its final n. With the opposite treatment of final *n, compare respectively enclitic Malecite -ɨp 'might, would', and preterit -hpɨn (Teeter 1971:223): lapo-ɨp 'she might look, she would look', lapohpɨn 'she looked'.

While the evidentials and *-(a:)kw nearly always refer to the past, the Malecite examples (above) and some from Algonquin, Moose Cree, and Micmac make clear that this is not an essential part of their semantics:

Cuoq's Algonquin grammar has some paradigms he calls 'futur hypothétique', with such forms as mi apitc ke sakihakiban 'c'est alors que je l'aimerais' ['it's then that I'd love her'], ke sakihakiban 'celui que j'aimerais' ['the one I would love', compare ka sakihakiban 'quand je l'eus aimé' ('when I had loved her')].

In Moose Cree, a potential is formed with -pan and a future preverb: ta-milwa:ŝino:pan 'it would be nice' (Ellis 1983:569), ta-ki:-wawe:ŝihta:pan 'she could fix it' (ibid., p. 651). Besides the normal Micmac future, there is one used only with the first person, e.g., ke: eliyeyap 'I'll go (willingly)' [-ap from *-a:n + -pan].

In all of these verbs, the suffix *-pan is used although the actions contemplated could only take place in the future. The Cree and Ojibwa verbs are irrealis, as pointed out by Cote, Ratt, and Klokeid (1987:54), but the Micmac example has a verb inflected for the future. Similarly, *-a:kw can have future reference (irrealis in my one clear example): Mc liyes'n kiskuk, mu eliyewisox sapo:nuk 'if she went today, she wouldn't go tomorrow' (NB1:25).

Unless, as is possible, we are dealing with two or more suffixes, it would appear that *-pan originated as an attestive evidential and became associated with the past because only the past is normally attested to. As a past, it was then used to mark past irrealis ('if X had..., Y would have...') in conditional sentences, whether in their conditional (conjunct) or result (originally potential) clauses. Next, in some languages it broadened to become a marker of irrealis (regardless of time).

Use of *-pan in conditional clauses may be secondary, as it is evidently limited to Algonquin and Saulteaux (Cote, Ratt, and Klokeid 1987:54-56), as in so:hkipo:nkipan 'if it had snowed' and k:iŝpin Mary

takoßinkipan 'if Mary arrives here', and to Blackfoot (e.g., nitsinaayiihtopi 'were I a chief' and nitsitsayooyiihtopi 'if I hadn't eaten then', Frantz 1971:31). Note that *a gives B i only in nonfinal position (Proulx 1989:58), showing the loss of the nasal to be late in that language.

The Conjunct Modes

Most of the Algonquian languages use the terminal suffixes in the conjunct order to express a system of modes - while in Pre-PA these suffixes merely agreed with or pronominally replaced a dependent nominal of the verb. Since it is difficult to be sure to what extent modes may have begun to emerge by PA times, it seems best to provide two alternate descriptions. [It does seem clear that initial change had been grammaticalized by PA times - and to that extent at least modes did exist.]

The four-mode hypothesis: If PA had conjunct modes they were SIMPLE INDICATIVE (*-i, *-e:), CHANGED INDICATIVE (*-i, *-e:), ITERATIVE (*-ili, *-e:li), PARTICIPLE (*-a '3', *-iki '3p', *-i '0', *-ili '0p', *-ili 'obv.', *-ihi 'obv. pl.', and *-i, *-e: '1(p), 2(p)'.[3]

Within the simple indicative mode, *-e: marks uncertain future action ('if' clauses, Bloomfield's subjunctive) - and in the changed indicative past situations that no longer obtain. This accounts for all but one peculiarity, which Bloomfield (1946:sec. 45) duly noted for Fox but did not reconstruct: the replacement (in 'when' clauses, i.e., those which mark the recent past or present) of *-i by *-e: whenever the preceding person suffix is *-ayenk '1p', *-ankw '12', or *-e:kw and *-a:kw '2p' (i.e., all elements expressing plurality and not ending in *t). However, Unami and Loup agree with Fox, Kickapoo and Shawnee here, and this synchronically odd pattern must be reconstructed for PA.

	remote past	recent = present	future
simple	---	-i, e:	-e:
changed	-e:	-i, e:	---

Examples of terminal *-e: being used in the changed mode for past inaccessible as well as in the simple mode for the uncertain future ('subjunctive') are: Loup ask8an pi8iciana 'lorsque j'astois encore jeune' (where *e: gives L a), kizi kichiai88iana 'quand je serai vieux' (Mathevet n.d. folio 42); Mc tami e:mas'nek 'where was I?' [having been interrupted in one's work]. Note that Micmac replaces PA *-e: with Mc -ek. Compare interrogative order F ona:pe:miwane 'before you

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got married' [the interrogative has similar modal inflection to the conjunct].

Terminal *-i (with supplementary *-e:) is used with these modes for present or recent past actions ('that' and 'when' clauses): Loup 8amanlania 'que je ... les aime' (with loss of terminal *n + short vowel), 8amanlanian '[que tu ...]' (with loss of terminal short vowel), 8amanlanieg8a '[que vous ...]' (ibid. folio 30 - with the first two items listed in reverse order, and paradigmatic position as only gloss after the first). Compare Fox: e:h-pi:tike:ya:ni 'while I enter', e:h-aŝamiyani 'that you gave me them to eat', e:h-ketema:kihe:kwe 'that you destroyed them' (Bloomfield 1927:205).

Iterative *-ili has a by-form *-e:li, specialized for clauses of habitual entailing actions ('as soon as, whenever'). This by-form survives in Fox (Goddard 1969:sec. 5.4.3 citing AR 40.615), and in Micmac: Mc te:sekel es'mɨkel, miĉisip 'every time I fed her, she ate'. [In languages where the latter by-form has become associated with the dubitative, the first by-form is sometimes used: Algonquin saiakihakin 'lorsque ou toutes les fois que je l'aime' (Lemoine 1911:12).]

Examples of the use of (*-i, *-e:) in the participle mode are: F ni:na wi:h-ako:si:ya:ni 'it is I who shall climb', ni:na:na wi:h-amwakeĉi 'we are the ones who will eat her' (with *-i after *t, and mutation of the latter to *ĉ), ki:ya:na:n e:ŝisoyakwe 'the body of us who bear this name'; I teperinkiani 'que je gouverne, ou moi qui gouverne'.

Fox and Shawnee disagree as to whether *-e: or a third person marker such as *-a '3' is used to nominalize a third person after the 3 plural suffixes ending in *k(w): F i:na wi:-sanake:nemakwa 'that is the one we shall think hard to obtain', Sh kekkilakwe 'the one who is concealed by us (inc.)'. Since in general the nonabsentative use of *-e: is irregular and archaic looking even in PA, Shawnee probably preserves the older usage here.

The participle hypothesis: The preceding analysis treats terminal conjunct suffixes as distinguishing various modes (as in the daughter languages). It is also possible, however, to regard all conjunct verbs as participles - which better reflects the nominal Proto-Algic origins of these terminals.

By this second analysis terminals making reference to time, place, or action require inanimate endings - inaccessible if the referent is remote in some sense, and singular except when the referents (generally temporal ones) are repeated (i.e., in iteratives).

The peculiar use of *-e: with plural participants (versus *-i for singular ones) is unexplainable within Algonquian - whether as a mode

sign or a nominal suffix. However, it makes good sense in terms of Proto-Algic, where I reconstructed the following deictic inflection, optionally stressed: *-o 'restricted', *-i 'extended, static, punctual', and *-e is 'extended, motile, durative' (Proulx mss.2:sec.11). Stressed variants of these endings are long vowels in the daughter languages, and *-e is continued as PA *-e:. If we interpret 'motile' as 'distributed in space' and 'durative' as 'distributed in time', *-e [and Pre-PA *-e:] are seen to be essentially distributive endings in contrast with nondistributive *-i.

Mithun (1986) has argued convincingly that grammatical number often evolves out of distributive suffixes and so, if the terminal suffixes of the PA conjunct agree with nominal referents [participants, time or place of action, etc.], it is hardly surprising to see that in some cases an old Algic distributive archaically agrees with plural person suffixes (and the corresponding nondistributive with the singular ones) in Algonquian. [There is a later grammaticalization in PA, so that only the immediately preceding element counts, and a preceding *t is always interpreted as *-t '3'.]

Initial change: Initial change, itself a marker of iteration and emphasis in origin, is of course found in the iterative mode. In addition, it has been grammaticalized for obligatory use in the participle mode [Yurok, in contrast, has both punctual and iterative participles ('the one who X', 'the one who always X')].

Bloomfield's reconstructions: Bloomfield (1946:secs.45-49) correctly reconstructs the more common nonterminal conjunct suffixes, except that:

(A) I see no motivation for a final *w in *-eɬakok '1-2p' (I -erag8k [teperimerag8ki 'que je vous gouverne', fol.39r], C -itakok, M -Enakok, O -inakok). This ending is reshaped in most of the languages: pseudo-PA *-eɬe:kw (D -ele:kw), *-eɬa:kw (Mc -ulox, Ms -unóg), and *-eɬako:w (F -enako:w, K -enako, Sh -elako, Po -ɨn[ɨn]ɨko, Mh -unaku [anenawunaku 'dass ich euch sehe = that I see you']). Alternatively, the Mahican orthography here may just be a variant of -aakq '2p' [amáttamaakq 'dass ihr fühlet = that you feel'], which would group this ending with that of the New England languages.

(B) *-ayenk should be substituted for *-a:nk '1p' (see Proulx 1980b:290). This reconstruction accounts for all the daughter languages without analogical reshaping, except in Menominee (where it is replaced by the '12' suffix) and Cheyenne (discussed below).

At one point, after correctly reconstructing this element, I was persuaded by the Cheyenne ending -té '1p' [from *-y plus the ending], to adopt a proposal that the PA ending was *-e:nk (Proulx 1984c:412) and that the Central languages analogically reshaped it. However, Goddard (1986) has explained Ch -sé '2p' as regular from *-ye:kw by

yodation of Pre-Cheyenne *ɬ (from *y) before *e:. I am persuaded that he is correct, which makes Ch -té from *-ye:nk impossible (since yodation would take place here too). Of course, Ch -té from *-ya:nk is also impossible, as *a: gives Ch o except in absolute word final position.

Deeper analysis of the improved data emerging on Cheyenne (thanks to Wayne Leman's fieldwork) suggests that first person plural markers have been extensively reshaped in that language. In possessed nouns the '1p' suffix is Ch -ané [PA *-ena:nV], in independent TI verbs it is Ch -énoné [*-e:nayena:ni], in independent TA direct forms it is Ch -óné [*-a:na:na], and (as we have just seen) in the conjunct it is generally Ch -té [*-yayenk]. In each of these cases, the final Cheyenne vowel should etymologically be ó instead of é.

The source of this Cheyenne innovation is the common AI independent ending *-Hmyena '1p', which regularly gives Ch -mé (although the reasons for the underlying stress are not known). Similarly, Ch -anémé from *-eko:Hmyena 'X-1p' is regular. From this base, Ch -é spread to all '1p' endings except the local ('you and me') ones:[4] Ch -emeno from *-iHmyena[:n] '2(p)-1p' and Ch -atemeno from *-eɬeHmyena[:n] '1p-2(p)' (both with early analogical restoration of length plus nasal after word shortening). The local endings in the conjunct order of Cheyenne are a composite of independent and conjunct endings - and indeed provide the only surviving trace of the latter: Ch -emenoto '2(p)-1p' and Ch -atemenoto '1p-2(p)' from the above endings plus Ch -to from *-yayenk.

Of course, Ch -to could also reflect *-ya:nk, and any analogical reshaping which took place in the Lake languages could have been shared by Cheyenne (during the Lake-Cheyenne period). However, if so it could only have spread to Cree much later (during the Central period). This would be more like borrowing than shared innovation, and strikes me as unlikely. The sociolinguistic prestige factors that favor a particular innovation at a particular time and place are not likely to recur centuries later. The proposed innovation of Central or Lake-Cheyenne *-a:nk '1p' (and its difficulties) are avoided by the reconstruction *-ayenk.

The remaining conjunct endings of PA are of less frequent use, more poorly attested in the literature, more often reshaped, and in some cases a bit marginal to the system. The patchy evidence shows that PA had a set of indefinite subject endings (which have survived poorly in the daughter languages), and partial sets of inanimate subject and obviation markers of likely recent origin.

Indefinite subjects: Bloomfield (1946:sec.46, 48) reconstructs two conjunct INDEFINITE SUBJECT endings, intransitive *-nk 'X' and transitive direct *-ent 'X-3'.[5] Fox and Kickapoo continue the rest of the PA endings, but Bloomfield's other 3 languages have reshaped on the

model of the independent order. Goddard (1969:sec. 5.5.35), using Delaware and Fox, is able to reconstruct one more ending: *-ink 'X-1'.[6] This set of endings appears to be most stable historically, perhaps due to more frequent usage.

Micmac data permits the reconstruction of a second set:

(8) *-eɬenk 'X-2' (I -erink, F -enek, Mc -ulk, Ps -iɬiɬk).

(9) *-eɬena:kw 'X-2p' (I -irenag8, F -ena:kw, Mc -ulox).

(10) *-eɬenankw 'X-12' (I -irenang8, F -enakw, Mc -ulk).

(11) *-iyenamenk 'X-1p' (I -iamink, Fox -i:namek, Mc -inamiɬk).

The *-(e)n between the thematic element and person suffix has been leveled out by analogy with the definite third person endings in the 'X-2p, X-12' endings in Fox and Micmac - and in the 'X-1p' ending in Illinois. The Micmac 'X-1p' ending also seems to reflect a shift of vowel length from the first to second vowel (after contraction of *iye to *i:), i.e., Pre-Mc *-i:namenk ---> *-ina:menk. The model for this may be imperative *-ina:me '2(p)-1p'. Micmac sometimes substitutes the link vowel -u- for *-e- at the beginning of an inflectional ending, probably a generalization of the regular reflex after a stem in Cw.

Inanimate subjects: INANIMATE SUBJECT endings in Pre-PA were generally the same as the corresponding lowest-topicallity (obviative) animate third person subject endings - a state of affairs partly continued in PA. Thus, we reconstruct:

(12) *-eɬk '0-2' (K -ehk, Mc -iɬsk).

(13) *-eɬa:kw '0-2p' (K -enaakw, Mc -ulox).

(14) *-eɬankw '0-12' (K -enakw, Mc -ulk).

(15) *-ekwet '0-3' (K -ekot, Moose Cree -ikot, O -ikot, M -Ekot). The inverse theme is required here because '0' is prototypically less topical than '3'.

In intransitives, *-k '0' (or *-nk, see below) instead of *-t '3' is used, and, as is generally the case, first person sg. objects require post-thematic endings agreeing with those of intransitives. Thus, we have:

(16) *-ik '0-1' (K -ik, Mc -ik). Or perhaps *-ink (see below).

(17) However, K -iamek '0-1p' is shown to be an innovation by Mc -inamiɬč - where the *-t is mutated by the terminal *-i 'inan. sg.' in the old participle from which the Micmac independent is drawn. The

proper PA reconstruction is likely thus *-iyament as for the animate third person.

The origin of the PA gender distinction *-t '3' versus *-k '3, 0' lies in their peculiar Pre-PA distribution (as internally reconstructed): Pre-PA *-t is generally supplanted by *-k when the next preceding element ends in a consonant. On the one hand, the stems of most verbs with inanimate subjects happen to end in consonants (especially *n from Proto-Algic *-Vn 'nondeliberate action' #177). On the other, Pre-PA has acquired a large number of abstract finals consisting of a vowel for the stems of its intransitive verbs with animate subjects (AI).

Hence, as PA times approached and animate (and inanimate) gender inflection was developing in pronouns, the distribution of Pre-PA *-t and *-k came to de facto signal a gender distinction in many cases. From there, it was a small step to grammaticalize the latter as an inanimate suffix and extend it to the few inanimate intransitive (II) stems which end in a vowel - and thence to 1-object themes.

History repeats itself in the negative submodes of Micmac, Passamaquoddy-Maliseet, and Saulteaux. There the II stem final *n, which so often precedes *-k, is itself grammaticalized as part of the inanimate ending as a sort of thematic element and, at least in Micmac, spreads to all the environments where *-k marks the inanimate. This *n drops before obstruent in Micmac and Passamaquoddy, but is retained when negative *-o intervenes. Thus, beside Mc eliyax 'it goes' [with *k ---> x after *a:] there is mu eliyanuk 'it doesn't go'; beside Ps pileyawik 'it's new' there is pileyawinuhk 'it's not new'; and beside Saulteaux ki:ŝpin so:kipponk 'if it snows' there is ki:ŝpin so:kipponsinok 'if it doesn't snow' (Voorhis 1984b:44-2). Consider also Mc mu ne:pa:yinuk 'it doesn't kill me' (theme ne:pa:yi- 'kill me'), with a first person object. If this innovation dates back to PA, (12) should be *-ink, and the intransitive ending *-nk.

Bloomfield's reconstruction [not spelled out in detail] of *-ek plus something for the conjunct inanimate subject endings is only valid for *-ekwet '0-3' (reconstructed above) - which is the analogical source for the forms in most of the Central languages, as well as independent order themes. Notable innovations are Pseudo-PA *-ekweyan '0-2' (Moose Cree -ikoyan, bO -ikuyan, M -Ekoyan) and the like.

(18) The rare '0-0' ending may have been class 1 TI *-amemakatk (M -amemakahk). Compare Moose Cree -amo:makahk, which may have picked up its rounded vowel from a class 2 TI *-awemakatk [?]. Needless to say, the evidence doesn't warrant firm conclusions.

The conjunct endings: The full set of PA conjunct endings (excluding obviatives), as reconstructed by Bloomfield (1946) and above, is:

PA CONJUNCT ENDINGS

INTRANSITIVES:

	PART.	INDIC.	I.-INACC.	ITER.	ITER.-HABIT.
1-	-a:ni	-a:ni	-a:ne:	-a:nili	-a:ne:li
2-	-ani	-ani	-ane:	-anili	-ane:li
3-	-t-	-ĉi	-te:	-ĉili	-ĉe:li
3/0-	-k-	-ki	-ke:	-kili	-ke:li
X-	-nki	-nki	-nke:	-nkili	-nke:li
1p-	-ayenke:	-ayenke:	-ayenke:	-ayenkili	-ayenke:li
12-	-ankwe:	-ankwe:	-ankwe:	-ankwili	-ankwe:li
2p-	-e:kwe:	-e:kwe:	-e:kwe:	-e:kwili	-e:kwe:li

TRANSITIVES:

	TI (c.l)	ME	THEE	HER	OBV.
1-	-ama:n	--	-e~~ł~~a:n	-ak	-emak [?]
2-	-aman	-iyan	--	-at	-emat [?]
3-	-ank	-it	-e~~ł~~k	--	-a:t
3'-	-amilit	-ilit [?]	--	-ekwet	-a:lit [?]
0-	-amemakatk [?]	-ik	-e~~ł~~k	-ekwet	--
X-	-amenk	-ink	-e~~ł~~enk	-ent	-ement
1p-	-amayenk	--	-e~~ł~~ayenk	-akent	-emakent [?]
12-	-amankw	--	--	-ankw	-emankw [?]
2p-	-ame:kw	-iye:kw	--	-e:kw	-eme:kw [?]

	US (INC.)	US (EXC.)	YOU
1-	—	—	-ełakok
1p-	—	—	-ełayenk
2(p)-	—	-iyayenk	—
3/0-	-ełankw	-iyament	-ełaːkw
X-	-ełenankw	-iːnamenk	-ełenaːkw

Participle *-t- gives *-ta '3', *-čiki '3p'; and *-k- gives *-ka '3', *-kiki '3p', *-ki '0', and *-kili '0p'. PA *-ekwet '0-3, OBV-3' is replaced by reflexes of *-ent 'X-3' in some Micmac forms.

The Nonaffirmative Order

The NONAFFIRMATIVE order is generally formed by adding postvocalic *-w or postconsonantal *-o after a stem or theme, followed by conjunct inflection - triggering the automatic replacement of third person *-t by *-k after consonants and metathesis of *wk to *kw. Examples are *-iwan '2-1' beside conjunct *-iyan, *-ełok '3-2' beside conjunct *-ełk, and *-aːkw '3-OBV' beside conjunct *-aːt.

Exceptionally, Ojibwa evidence suggests *-aw rather than *-o in the ending *-eławaːn '1-2'. Illinois has innovated in always placing the nonaffirmative suffix after negative *-hsi [before metathesis of wk], making it precede the 2-object theme sign (e.g., I -es8rang8 '3-12' beside conjunct *-ełankw). In Moose Cree, the mode sign -eː (often preceded by unetymological -w) has come to signal the dubitative by itself, and the nonaffirmative premodal ending is replaced by its conjunct counterpart in some forms. Compare C -aːwateː '2-3' with premodal *-w (versus conjunct -at) and C -iyamihteː '3-1p' without it (versus conjunct -iyamiht).

The uses of the nonaffirmative are harder to reconstruct than their phonology. A PA use reconstructed by Goddard (1969:sec.5.43) is illustrated by some Fox and Unami forms meaning 'before', i.e., unrealized action: F wiːsenikwe 'before she ate', uD néːsko eːpːíːkːwe 'before she was', uD néːsko aː miːtsíːyon 'before you eat'. Other uses, attested by some groups of daughter languages, may be secondary.

Subordinate to a negative element - a particle in the Eastern languages, and the suffix *-hsi in Illinois and Ojibwa - it forms NEGATIVE submodes of the conjunct. Examples of conjunct negatives: Mc mu es'mawkw 'we (inc.) don't feed her', mu eliyekw 'she doesn't go'; O noːntuwaːssuwak 'if I do not hear her', naːtłmawłssiwan 'if thou dost

not help me', I teperinkisi8ani 'que je ne gouverne pas, moi qui ne gouverne pas', and teperinkisig8i [unglossed] 'that she not rule, she who doesn't rule'.

In the Central languages, the iterative terminal *-e:li came to be used with the nonaffirmative. Perhaps at first only in 'whenever it may be' clauses (e.g., F na:hina: e:-ne:tamowe:kwe:ni 'at whatever time ye may see it'). Next in 'clauses centering round an interrogative element' (whenever, whatever, however, when, how); then in 'clauses of questioned occurrence' (whether). Finally it may have been grammaticalized and used in 'sentences of interrogative tone, resembling the dubitative' (Bloomfield 1927:sec.130 describing Fox). The conjunct dubitative in Cree and Ojibwa is similar in its uses: Algonquin saiakihawaken 'si jamais je l'aime; moi qui l'aime peut-être' (Lemoine 1911:11).

In Fox, grammaticalized *-e:li is interpreted as a sequence, and inaccessible *-é: and participle *-a sometimes replace the *-i. Similarly, Algonquin has the likes of dubitative participle -gwenak '3p' (Lemoine 1911:tables) - where the *-i is replaced by *-aki.

This analysis, which establishes an iterative (rather than dubitative) origin for Central *-e:li, does not support relationship with the interrogative particle Y hes. Therefore, the Algonquian evidence for Proto-Algic *e:li, *e:ri (no. 219) is limited to O -e:n in interrogative pronouns and the nouns with which they concord (e.g., Algonquin awenen pinenen 'quelle perdix?' (Lemoine 1911:10).

Definite subject endings: Reconstructable DEFINITE SUBJECT endings are attested by negative conjuncts (N) in Illinois, Ojibwa (and Lemoine's Algonquin, abbrev. "lA"), and the Eastern languages; and by dubitatives (D) in *-e:li (called 'interrogatives' in the first two) in Fox (and Kickapoo, abbrev. "K"), Ojibwa, and Cree:

DEFINITE NONAFFIRMATIVE ENDINGS

INTRANSITIVES:

	PA	ILLINOIS (N)	OJIBWA (N)	MASS. (N)	MICMAC (N)
1-	-(o)wa:n	-si8ani	-ssiwân	-8on	-(u/w)[an-]
2-	-(o)wan	-si8ani	-ssiwan	-8an	-(u)wun
3-	-(o)kw	-sig8i	-ssik	-8g	-(u)kw
0-	-nok [?]	--	-ssinok (S)	—	-nuk
1p-	-(o)wayenk	-si8anki	-ssiwâng	—	-(u)wek
12-	-(o)wankw	-si8ang8i	-ssiwang	-8og	-wkw, -(u)k
2p-	-(o)we:kw	-si8ec8i	-ssiweg	-8óg	-(u)wox

	PA	FOX (D)	OJIBWA (D)	CREE (D)	PASS. (N)
1-	-(o)wa:n	-wa:ne:ni	-(o)wânen	-wa:ne:	-w[an]
2-	-(o)wan	-wane:ni	-(o)wanen	-wane:	-wɨn
3-	-(o)kw	-(o)kwe:ni	-(o)gwen	-(o)kwe:	-hkw
0-	-(o)kw [?]	-(o)kwe:ni	-(o)gwen	-(o)kwe:	-nuhk
1p-	-(o)wayenk	-wa:ke:ni	-(o)wângen	-wa:hkwe:	-wehk
12-	-(o)wankw	-wakwe:ni	-(o)wangen	-wahkwe:	-wɨhkw
2p-	-(o)we:kw	-we:kwe:ni	-(o)wegwen	-we:kwe:	-wehkw

TI:

	PA	FOX (D)	OJIBWA (D)	CREE (D)	PASS. (N)
1-	-amowa:n	-amowa:ne:ni	-amowânen	-amowa:ne:	-imu[wan]
2-	-amowan	-amowane:ni	-amowanen	-amowane:	-imuwin
3-	-amokw	-amokwe:ni	-amogwen	-amokwe:	-imuhk
0-	-amokw [?]	—	—	-amokwe:	—
1p-	-amowayenk	-amowa:ke:ni	-amowângen	-amowa:hkwe:	-imuwehk
12-	-amowankw	-amowakwe:ni	-amowangen	-amowahkwe:	-imuwihkw
2p-	-amowe:kw	-amowe:kwe:ni	-amowegwen	-amowe:kwe:	-imuwehkw

1-OBJECT:

	PA	ILLINOIS (N)	OJIBWA (N)	MASS. (N)	MICMAC (N)
2-1	-iwan	-isi8an	-issiwan	-eean	-iwun
2p-1	-iwe:kw	-isi8eg8	-issiweg	-eeóg	-iwox
2(p)-1p	-iwayenk	-isi8angh	-issiwâng	—	-iwek
3-1	-ikw	-isig8[tch]	-issik	-eegk	-ikw
3-1p	-iwament [?]	-isi8amintch	-isinowâng (1A)	—	-inamit
0-1	-inok [?]	—	—	—	-inuk

	PA	FOX (D)	OJIBWA (D)	CREE (D)	PASS. (N)
2-1	-iwan	-iwane:ni	-iwanen	-iwane:	-iwin
2p-1	-iwe:kw	-iwe:kwe:ni	-iwegwen	-iwe:kwe:	-iwehkw
2(p)-1p	-iwayenk	-iwa:ke:ni	-iwângen	-iwa:hkwe:	-iwehk
3-1	-ikw	-ikwe:ni	-ikwen	-ikwe:	-ihkw
3-1p	-iwament [?]	-iyamekwe:ni	-inowângiten -iiaminden (1A)	-iyamihte:	—

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	PA	ILLINOIS (N)	OJIBWA (N)	MASS. (N)	MICMAC (N)
1-	-a:wak	-asi8ak	-âssiwag	-oog	-ax
2-	-a:wat	—	-âssiwat	-oadt	-awt
3-	-a:kw	-asig8	-âssig	-unk	-axol
1p-	-a:wakent	-asi8akintch	-âssiwângit	-oogkut	-axat
12-	-a:wankw	-asi8ang8	-âssiwang	—	-awkw
2p-	-a:we:kw	-asi8eg8	-âssiweg	-oóg	-awox
3'-	-ekwekw	-eg8sig8[iki]	-ikussik	-ɨkwɨk (mD)	-kukul

	PA	FOX (D)	OJIBWA (D)	CREE (D)	PASS. (N)
1-	-a:wak	-a:wake:ni	-âwâgen	-a:wak(w)e:	-awan
2-	-a:wat	-a:wate:ni	-âwaten	-a:wate:	-awɨn
3-	-a:kw	-a:kwe:ni	-âgwen	-a:kwe:	-ahkw
1p-	-a:wakent	-a:wakete:ni	-âwângiten	-a:wakihte:	-awehkw
12-	-a:wankw	-a:wakwe:ni	-âwangen	-a:wahkwe:	-awɨhkw
2p-	-a:we:kw	-a:we:kwe:ni	-âwegwen	-e:we:kwe:	-awehkw
3'-	-ekwekw	-ekokwe:ni (?)	-egugwen	-ekokwe:	—

2-OBJECT:

	PA	ILLINOIS (N)	OJIBWA (N)	MASS. (N)	MICMAC (N)
1-2	-eława:n	-es8ran	-issinâwân	-un8on	-ulu
1-2p	-ełonakok	-es8rag8k	-issinonagok	-un86g	-uluwox
1p-	-ełowayenk	-es8rangh	-isinowang (1A)	-un86g	-uluwek
3-2	-ełok	-es8k	-issinuk	--	-uluk
3-12	-ełowankw	-es8rang8	-issinowang	--	-uluk
3-2p	-ełowa:kw	-es8rag8	-issinoweg	-uk86g	-uluwox

	PA	FOX (D)	OJIBWA (D)	CREE (D)	PASS. (N)
1-2	-eława:n	-enowa:ne:ni	-inâwânen	-itiwa:ne:	-łluwan
1-2p	-ełonakok	-enowago:we:ni (?)	-inakokwawen	-itakokwa:we:	--
1p-	-ełowayenk	-enowa:ke:ni	--	-itiwa:hkwe:	-łluwehk
3-2	-ełok	-enokwe:ni	-inukwen	-iskwe:	-łluhk
3-12	-ełowankw	-enowakwe:ni	-inowangen	-itahkwe:	-łlinłhkw
3-2p	-ełowa:kw	-enowa:kwe:ni	-inowegwen	-ita:kwe:	-łlinahkw

Note that Ps <u>in</u> in the last two reconstructions is analogical from PA indefinite-actor forms.

With regard to the class 1 TI endings, note that negative-order *-amo is surely the analogical source for A -owu in the Arapaho negative order (from the PA independent) as recorded by Kroeber - not *-ami with innovated connective *-i- as had been supposed (cf. Proulx 1980a:sec.2.8, 1984c:sec.2.8). This requires the nonaffirmative suffix to have spread from the conjunct to the independent in Pre-Arapaho.

The same sort of spread from nonaffirmative to independent (and thence imperative) verbs is seen in Micmac, with muk s'maw 'do thou not feed her' (with nonaffirmative -w) beside muk s'map 'do ye not feed her' (with -p from independent *-Hm). Micmac has recut the sequence of negative particle (mu) plus second-person prefix (k-) plus verb stem, so that the erstwhile prefix is enclitic to the negator.

Indefinite subject endings: The reconstructable set 1 INDEFINITE SUBJECT endings of the nonaffirmative order are:

(19) *-iwenk 'X-1' (F -i:ke:ni, K -iikeeni, uD -i:wɨnk).

(20) *-a:went 'X-3(p)' (K -aateeni, Algonquin -awinden [dubitative] and -asiwintc [negative] (Lemoine 1911:tables), uD -a:wɨnt, Mc -at).

(21) In addition, I -si8nki, F -:ke:ni, K -:keeni, and grammatical patterning suggest that a third (intransitive) member of the set was *-wenk 'X-'. The Illinois ending is based on a single form, I teperinkisi8nki, evidently a negative counterpart listed after I teperinkinki (listed with other forms under 'on gouverne', fol.39r).

Kickapoo endings (Voorhis 1974:chapter 13) and one from Micmac suggest the following endings for set 2:[7]

(22) *-ełowenk [?] 'X-2' (K -enookeeni).

(23) *-ełona:kw [?] 'X-2p' (K -enoaakweeni). The *n is leveled out as in (9).

(24) *-ełonankw [?] 'X-12' (K -enóakweeni). The *n is leveled out as in (10).

(25) *-iwenamenk 'X-1p' (Fox -i:namek, Mc -inamɨk) [identical to the corresponding ending of the conjunct in the daughter languages].

The nonaffirmative endings: The full set of nonaffirmative endings is:

SUMMARY OF NONAFFIRMATIVE ENDINGS

	AI	TI	ME	THEE	HER	OBV.
1-	-wa:n	-amowa:n	—	-eława:n	-a:wak	
2-	-wan	-amowan	-iwan	—	-a:wat	
3-	-kw	-amokw	-ikw	-ełok	—	-a:kw
3'-	-	--	—	—	-ekwekw	
0-	-kw [-nok?]	-amokw [?]	-inok [?]	—	—	
X-	-wenk [?]	-?	-iwenk	-ełowenk	-a:went	
1p-	-wayenk	-amowayenk	—	-ełowayenk	-a:wakent	
12-	-wankw	-amowankw	—	—	-a:wankw	
2p-	-we:kw	-amowe:kw	-iwe:kw	—	-a:we:kw	

	US (EXC.)	US (INC.)	YOU
1-	—	—	-ełonakok
1p-	—	—	-ełowayenk
2(p)-	-iwayenk	—	—
3-	-iwament [?]	-ełowankw	-ełowa:kw
X-	-iwenamenk	-ełonankw	-ełona:kw

The Potential Order

PA had a NEUTRAL mode of the POTENTIAL order, with meanings like 'could, would' etc., preserved in Fox and Micmac with some postposed accretions. Without the accretions and with a different third person ending, it had a PROHIBITIVE mode with TIMORATIVE and PROHIBITIVE functions and a DELAYED IMPERATIVE mode - which differs from the prohibitive only by its uses and by the absence of irregularities.

The neutral mode: The mode sign of the NEUTRAL is *-a. It is preceded by one of the (originally submodal ?) elements *-S, *-p, and perhaps *-h [where S = s, hs, hɬ, ns, ?s, or ?ɬ]. Fox and Micmac both have *-S with '3', and Micmac does so with 'X'. Fox has *-p with '2', Micmac with '12'. Elsewhere Fox has *h and Micmac zero (final *hV would give Micmac zero). [Fox also has an -hV sequence, with a replaced by e when the next preceding vowel is a front one, in the conjunct - where it forms an UNREAL mode.]

The origin of these 3 elements is not known, but Illinois has a particle 8ha 'plut a dieu' (fol.38r) and, as we have seen in sec.1, *-pan is widely associated with conditional sentences. Regular word-shortening (Proulx 1982a:402) would give F -pa from word-final *-panV.

The NEUTRAL mode has *-k plus a conjunct person ending for the first two persons. In intransitives (and first person themes, which morphologically always inflect like intransitives) *h precedes the *-k - and the resulting cluster has a tendency to be generalized. Micmac has haplology and compensatory lengthening of a preceding vowel in the sequence *-k-ankw '12'.

The direct theme is *-iye: with subjects of the first two persons -versus *-a: with third person ones and *-e with indefinite ones - and there is a tendency to generalize *-a:. The third person ending is *-Sa, added to a stem or theme [cf. prohibitive *-(h)kiči]. In the following table, Fox forms are supplemented by Kickapoo ones where the two differ or Fox ones are unavailable.

POTENTIAL NEUTRAL

	PA	Fox	Kickapoo	Micmac
1-	-hka:n	-hka:ha		-k(a-)
2-	-hkan=pa	-hkapa		-k
1p-	-hkayenk	-hka:kehe		-kek
12-	-hkankw=pa	-hkakoha		-:kup
2p-	-hke:kw	-hke:koha		-kox
3-	-Sa	-sa		-s
X-	-ne:	-ne:ha		-nes
2-1	-ihkan=pa		-ihkapa	-ik
2p-1	-ihke:kw		-ihkeekoha	-ikox
2(p)-1p	-ihkayenk		-ihkaakeha	-ikek
3-1	-iSa		-iθa	-is
X-1	-ine:=Sa	-ihki:ke (G)	-ineeha	-ines
3-1p	-iyamenSa		-iameθa	-inamis
X-1p	-i:namene:=Sa		-iinameneeha	-inam'nes
1-2	-ełaka:n	-en(en)aka:ha		-ulik
1p-2(p)	-ełakayenk		-enakaakeha	-ulikek
3-2	-ełeSa		-eneθa	-ulis
X-2	-ełene:=Sa	-enaki:ke (G)	-eneneeha	-ulines
3-12	-ełankweSa		-enakoθa	-ulkus
1-3(p)	-iye:ka:n	-iye:ka:ha		-iyek(a-)

2-3(p)	-iye:kan=pa	-iye:kapa		-ax
1p-3(p)	-iye:kayenk	-iye:ka:kehe		-axek
12-3(p)	-iye:kankw=pa	-iye:kakoha		-a:xop
2p-3(p)	-iye:ke:kw	-iye:ke:koha		-axox
3-3(p)	-a:Sa	-a:sa		-as
X-3(p)	-ene:	-ene:ha		-anes
3'-3	-ekweSa	-ekosa		-Ekus
1-0	-anka:n		-akaaha	-Amuk
2p-0	-anke:kw	-ake:koha		-Amukox
3-0	-anSa	-asa		-As
X-0	-ane:=Sa	-ane:ha		-Am'nes

Fox forms marked (G) are from Goddard (1985:419-420). This source also gives the alternate ending -enaka '1-2' in F okwisemenaka 'you might be my son'. Examples of the potential neutral: F we:cinowatesa 'it would be easy', Mc wtaywulis 'it or she would frighten you'.

The prohibitive versus the delayed imperative: The mode sign of the PROHIBITIVE and DELAYED IMPERATIVE is the same as in the indicative conjunct (*-i, *-e:), judging by the Loup prohibitive. In the Fox prohibitive, *-e of the imperative and injunctive replaces *-e: (in plurals) and optionally *-i after third person -ê --- perhaps because in this language the prohibitive (used to prohibit) is simply the negative counterpart of the imperative and injunctive orders.

This pairing is not found in Loup, which has true negative imperatives contrasting with its prohibitives. Compare negative imperative L ak8i missaniss8k8e 'n'ayes pas honte' (fol.2) with prohibitive ak8i missalissikan 'ne meprise pas' (fol.90). A dialect difference could possibly account for this particular pair - note the n/l contrast in the verb stem - but in general there is a semantic contrast which implies contrasting paradigms: negative imperative glosses suggest immediacy and prohibitive ones delayed or long term action. Compare, for example, negative imperative ak8i token 'ne l'eveille pas' and prohibitive L ak8i t8kinikan 'ne m'eveille pas' in paradigmatic relation on folio 65 [presumably the command not to wake a third person is for immediate execution - while 'don't wake me' only makes sense if there is a delay].

Illinois has the following innovations: -tche for *-ĉi (generalizing the optional Fox innovation just mentioned) and otherwise the mode sign of its conjunct subjunctive. This is I -e in -ane '1,2' - and -i elsewhere (see fol.38r, beside 'Plut a d[ieu] que je l'aimasse').

This pattern evidently develops when subjunctive -e is generally leveled out in favor of indicative -i (see fol.38v beside 'que je gouverne ou moi qui gouverne' for the subjunctive pattern). However, because the '1,2' endings have been disrupted by word-shortening in the indicative (Proulx 1984c:417), there is no model for reshaping the corresponding subjunctive endings. Rather, the indicative '1,2' endings are eventually restored using the subjunctive endings - protected from word-shortening by the long final vowel - as the analogical model.

The prohibitive mode: The PROHIBITIVE mode, perhaps with special intonation, has a timorative function implying undesired possible events in Fox (Bloomfield 1927:201) and Illinois: F pana:ĉihihkiĉe 'she is likely to do me ruin', I teperinkicca 'de peur que je ne gouverne', nipecca 'de peur que je ne meure', nipeccane 'de peur que tu ne meure', atsinsiccane 'prends garde d'etre bruller'.

It was also used to prohibit action - generally accompanied by a negative element - as attested by Fox (with ka:ta), Illinois (with -s8), Unami Delaware (with káĉi), Potawatomi (with keko), Massachussett, Loup (with ak8i), and, with reinforced endings, Ojibwa (with ke:kwa). Ojibwa reinforced its endings with *-en and early contracted *ane to *e: as in PA [rather than to a: which it would from the Lake period on (Proulx 1984c:409)]. Its '2(p)-1p' ending is then reshaped to have terminal -e:n like '2-1'.

It is not clear if the reinforcing element is related to the one used on imperative endings in Natick, Loup, and Menomini (Proulx 1984c:417). In the following table, Fox forms are supplemented by Kickapoo (K) ones where the two differ or Fox ones are unavailable.

PROHIBITIVES

	PA	FOX	UNAMI	OJIBWA	MASS.
2-	-hkani	-hkani	-han	-kke:n	-
2p-	-hke:kwe:	-hke:ko	-he:kw	-kke:kon	-
3-	-hkiĉi	-hkiĉi	-hi:ĉ	-	-
2-1	-ihkani	-ihkani	-i:han	-iŝŝikke:n	-ehkon
2p-1	-ihke:kwe:	-ihke:ko	-i:he:kw	-iŝŝikke:kon	-ehteók
2(p)-1p	-ihkayenke:	-ihka:ke	-i:he:nk	-iŝŝikka:nke:n	-
3-1	-ihkiĉi	-ihkiĉi	-	-	-ehkitch
2-3	-iye:kaĉi	-iye:hkani	-iye:kaĉ	-a:kke:n	-uhkon
2p-3	-iye:ke:kwe:	-iye:ke:ko	-iye:ke:kw	-a:kke:kon	-uhteók
3-3'	-a:hkiĉi	-aahkici (K)	-	-	-uhkitch
2-0	-ankani	-ahkani	-ankihan	-	-uhkon
2p-0	-anke:kwe:	-akeeko	-ankihe:kw	-anke:kon	-
3-0	-ankiĉi	-akiĉi (K)	-ankihi:ĉ	-	-uhkitch

Goddard (1985:419-420) cites also: F -iye:kani '2-3', -iye:kiĉe '3-OBV', -akani '2-0', and -akiĉe '3-0'.

	PA	ILLINOIS	POTAWATOMI	LOUP	MALECITE
2-	-hkani	-s8cane	-k:ɨn	-kan	-hkɨc
2p-	-hke:kwe:	-s8kic8i	-k:ek	-chag8a	-hkekw
3-	-hkiĉi	-s8kitche	-	-	-hkɨc
2-1	-ihkani	-is8ccane	-s̊:ik:ɨn	-ikan	-ihkɨc
2p-1	-ihke:kwe:	-is8kic8i	-s̊:ik:ek	-	-ihkekw
2(p)-1p	-ihkayenke:	-is8ccanghe	-s̊:ik:ak	-	-ihkek
3-1	-ihkiĉi	-	-	-	-ihkɨc
2-3	-iye:kaĉi	-as8ccane	-ak:ɨn	-ankan	-ahkɨc
2p-3	-iye:ke:kwe:	-as8kic8i	-ak:ek	-	-ahkekw
3-3'	-a:hkiĉi	-as8kitche	-	-	-ahkɨc
2-0	-ankani	-ans8ccane	-	-am8kan	-ɨmuhkɨc
2p-0	-anke:kwe:	-ans8kic8i	-	-am8chag8a	-ɨmuhkekw
3-0	-ankiĉi	-ans8kitche	-	-	—

Malecite forms with second-person subjects are from Leavitt and Francis (1986), those with third-person subjects from Teeter (1971).

Unami ɨh is analogical in the last 2 forms cited (Goddard 1969:sec. 5.4.5). Massachusett has -ôhkon = -uhkon '2-3', which suggests that the 3-object forms in u may in fact be TI in origin.

PA *ke: underwent yodation in several languages, with varying results to the consonant and vowel. In Illinois, the vowel merged with *i: to i, e.g., I -kic8i from *-hke:kwe: 'do thou later', I kiconintche 'pourquoi?' (stem *ke:kw-'what?'), cf. Mi lakikwi from *welake:ɨkwi 'tree bark'.

In Loup, the consonant becomes s̊, e.g., L elelendam8chag8a 'ne pensez pas cela' (fol.10, reshaped *eɨe:lentanke:kwe:, with am8 for an)

beside L elelendam8kan 'ne pense pas cela' (from reshaped *eɬe:lentankan), L chag8a 'qu'est ce que?' (fol.44, from *ke:kw- 'what?'), L nighitimancheliman 'j'ai pitié de luy' (fol.103, from *neketema:ke:lema:wa), L makisinichat 'cordonier' (fol.24, from *mahkesinéhke:ta 'the one who makes shoes').

The replacement of thematic *-iye: by -a: in Ojibwa does not extend to Algonquin: ka8in a8iia kimotimiieken 'ne dérobe à personne' (Cuoq 1866:76), and *-an '2' has been replaced by *-at of the same meaning in Wawenock mozak bácwɬlikkac 'don't cheat me' (Voorhis 1982:197) - unless this is really an archaism. Other examples of the prohibitive mode: F asa:mi-wa:paŝihto:hka 'I might waste too much of it', ka:ta wi:ĉe:we:hkani 'do not go along', mya:ŝikehkiĉi 'it might turn out badly', uD káĉi nhiliyé:k:aĉ 'don't [you sg.] kill her, them'.

The delayed imperative mode: The DELAYED IMPERATIVE mode is much like the prohibitive mode without a negative element, but some irregularities have been leveled out: in direct themes *-iye: ---> *-a:, *-hk everywhere replaces *-k, *-an '2' replaces *-at '2-3', and TI *-ank ---> *-amo:hk.

DELAYED IMPERATIVES

	PA	ILLINOIS	OJIBWA	CREE	CHEYENNE
2-	-hkani	-ccane	-kkan	-hkan	-o
2p-	-hke:kwe:	-kic8i	-kkek	-hke:k	-hené
12-	-hkankwe:	-[ca8i]	-kkang	—	—
3-	-hkiĉi [?]	-kitche	—	—	—
2-1	-ihkani	-icane	-iŝŝikkan	-i:hkan	-eo
2p-1	-ihke:kwe:	-ikic8i	-iŝŝikkek	-i:hke:k	-ehené
2(p)-1p	-ihkayenke:	-icanki	-icikang (1A)	-i:hka:hk	—
3-1	-ihkiĉi [?]	-ikitche	—	—	—
2-3	-a:hkani	-acane	-âkkan	-a:hkan	-oo
2p-3	-a:hke:kwe:	-akic8i	-âkkek	-a:hke:k	-ohené
12-3	-a:hkankwe:	-[acca8i]	-âkkang	-a:hkahk	—
3-3'	-a:hkiĉi [?]	-akitche	—	—	—
2-0	-amo:hkani	-am8ccane	-amokkan	-amo:hkan	-omeo
2p-0	-amo:hke:kwe:	-am8kic8i	-amokkek	-amo:hke:k	-omáhené
12-0	-amo:hkankwe:	-[am8cca8i]	-amokkang	—	—
3-0	-amo:hkiĉi [?]	-am8kitche	—	—	—

Ojibwa forms are from Baraga, supplemented by one (1A) from Lemoine's Algonquin. Goddard (1985:419-420) cites also: F -hkani '2', -a:hkani '2-3', -a:hke:ko '2p-3', -a:hkakwe '12-3', -a:hkiĉe '3-OBV', and -amo:hkani '2-0'.

The Imperative Order

IMPERATIVE and injunctive forms constitute a same order in PA, with the same mode sign *-e, but their histories are somewhat separate.

The imperative endings: Bloomfield (1946:sec. 43) reconstructed most of the imperative endings. Goddard (1969:sec. 5.5.44-46) replaced its final *os with *wes, no doubt because *w is preserved in Eastern reflexes of *-kwe. I later showed that *-anlo should be *-ahwe (Proulx 1980a:sec. 2.7, 1984c:sec. 2.7), and Goddard (1981:sec. 3.1) replaced *-ina:nke with *-ina:me.

An additional ending *-ta:we 'let's' (with by-form *-ta:ne) can be reconstructed. When both are found in the same language, the n-form is more closely associated with TA verbs:

	AI	TI (class 1)	TA direct
PA	-ta:we	-e:ta:we	-a:ta:ne
K	-tae, -taane	—	-aataane
mC	-ta:w, -ta:(k)	-e:ta:(k)	-a:ta:nik '12-3p'
			-a:ta:k '12-3'
pC	-ta:n	-e:ta:n	-a:ta:n
Mt	-ta:u	-eta:u	-a:ta:u
F	-ta:we	-a:ta:we	-a:ta:we
I	-ta8i	-anta8i	-ata8i
bO	-ta, -tâk	-anda, -andâk	-âta, -âtâk
Mh	-tau	-emotaù	--
Ms	-ttuh	-umuttuh	-ontuh
L	-ten (f.40)	-ameten (f.42)	-anten (f.22)
uD	-tam	-amo:tam	-a:tam

The endings with k are obviously innovations shared by Moose Cree and Ojibwa. The origin of the Unami endings is less certain, and there

is Mc -neĉ and Malicite -ne which appear unrelated to the other endings.

In summary, the imperative endings of PA are as follows:

2-	*-lwe	2-0	*-ahwe (class 1)
2p-	*-(o)kwe	2p-0	*-amokwe (class 1)
12-	*-ta:we	12-0	*-e:ta:we (class 1)
2-1	*-ilwe	2-3	*-i
2p-1	*-ikwe	2p-3	*-ehkwe
2(p)-1p	*-ina:me	12-3	*-a:ta:ne

The injunctive: The injunctive survives at the extremities of the Algonquian homeland - our best evidence is from Illinois, Fox, Kickapoo, Micmac, Passamaquoddy, and Massachusett - but around its core it is lost and sometimes replaced by the conjunct simple indicative inaccessible (=subjunctive, with mode sign *-e:) plus the future particle *ĉi (cliticized). The particle is depalatalized in Old Ottawa.

Examples of the latter formation are: mD wĉɬwpé:ke-ĉ 'let it or her fall' and uD wɬle:lɬmokwsí:t:e-ĉ 'let her be glorified' (Goddard 1969:sec. 3.38), and Old Ottawa tibelindisoianet 'il faut que je me gouverne' and sakihitet ['she'd better love me'] (Dépéret, cited in Pentland 1984:14-15). Contrast the original use of this formation, preserved in L 8a8antaamanatch 'si je suis sage' (Mathevet 1748:fol.42).

Reconstructable forms of the injunctive are:

	PA	ILLINOIS	KICKAPOO	MICMAC	MASS.	PASS.
intr.	-ĉye	-tche	-ce	-ĉ	-tch	-c
-1	-iĉe	-itche	-ice	-	-itch	-ic
-2	-eɬeĉye	-eritche	-enece	-uliĉ	-	-ɬihc
-12	-eɬankweĉye	-	-enakoce	-ulkuĉ	-	-ɬinɬc
-1p	-iyamenĉye (?)	-iamintche	*-iamece	-inamɬĉ	-	—
-3'	-a:ĉe	-atche	-aace	-	-onch	-ac
3'-3	-ekweĉye	-eg8tche	-ekoce	-kuĉ	-	-kulihc

The intransitive ending is also attested in Loup (8a8antamihits 'qu'ils soient sages' [Mathevet 1748:folio 42]), and Mahican (pmawsoeètsch 'let her live' [Schmick 1754, under 'let']. The obviative subject ending in Passamaquoddy adds obviative -li-.

The Independent Order

Independent order verbs are relatively new formations in PA, and are the first Algic verbs to sometimes express the gender and number of third person referents in verbal inflection [apart from conjunct participles, which syntactically are nouns]. I have reconstructed the history of these verbs elsewhere (Proulx 1982a, 1984b). See also sec. 1.2-1.4 above.

Most PA independent verbs are ABSOLUTE, inflecting for the gender and number of third person subjects only. A set of OBJECTIVE independent verbs (boldfaced below) was just beginning to get established when PA broke up into separate languages. In objective verbs, the gender (and often number) of all third persons is indicated. The PA independent order inflects as follows:

INTR. NEUTRAL		ATTESTIVE	DUBITATIVE
1-	n-...	n-...-Hmepani	n-...-Hmetoke
2-	k-...	k-...-Hmepani	k-...-Hmetoke
2p-	k-...-Hmwa	k-...-Hmwa:pani	k-...-Hmwa:toke
12-	k-...-Hmena	k-...-Hmenawepani	k-...-Hmenawetoke
1p-	n-...-Hmena	n-...-Hmena:pani	n-...-Hmena:toke
3-	...-wa	...-wepani	...-wetoke
3p-	...-waki	...-wepaniki	...-wetoke:niki
X-	...-na	...-nayepani	...-nayetoke

	TI (class 1)	INAN. SUBJ.	INDEF. SUBJ.
1	n-...-e:	n-...-ekwe	n-...-eko:
2	k-...-e:	k-...-ekwe	k-...-eko:
2p	k-...-e:Hmwa	k-...-ekweHmwa	k-...-eko:Hmwa
12	k-...-e:Hmena	k-...-ekweHmena	k-...-eko:Hmena
1p	n-...-e:Hmena	n-...-ekweHmena	n-...-eko:Hmena
3	...-amwa	...-ekwa	...-a:wa
3p	...-amwaki	...-ekwaki	...-a:waki

	TA DIRECT	TA INVERSE
1	**n-...-a:wa(ki)**	**n-...-ekwa(ki)**
2	**k-...-a:wa(ki)**	**k-...-ekwa(ki)**
2p	k-...-a:Hmwa	k-...-ekwewa:wa
12	k-...-a:Hmena	k-...-ekwenawa
1p	n-...-a:Hmena	n-...-ekwena:na
3	...-e:wa	...-ekwa
3p	...-e:waki	...-ekwaki

LOCAL:

1-2	k-...-eɬe	2-1	k-...-i
1-2p	k-...-eɬeHmwa	2p-1	k-...-iHmwa
1-2(p)	k-...-eɬeHmena	2(p)-1	k-...-iHmena

Independent verbs were used chiefly in main sentences for statements of fact.

The Subordinative Order

The subordinative order of PA (see Proulx 1980b) has Proto-Algic antecedents, but the distribution of its themes is clearly analogical to those of the independent order. It has the following inflection, added to stems and themes:

	NEUTRAL	ITERATIVE
1-	n-...-ni	n-...-nali
2-	k-...-ni	k-...-nali
3-	w-...-ni	w-...-nali
1p-	n-...-nayena	n-...-nayena
12-	k-...-nayenawi	k-...-nayenawali
2p-	k-...-nayewa:wi	k-...-nayewa:wali
3p-	w-...-nayewa:wi	w-...-nayewa:wali

Subordinative verbs were used chiefly as complements in emphatic-relative constructions (Proulx 1980b:296-297), emphatic-iterative ones (Proulx 1984b:407-409), and mental-action ones (Proulx 1980b:298). The PA emphatic-iterative survives only in the Menominee negative order.

Causative constructions, found in at least Micmac and Delaware, may perhaps be of PA antiquity: Mc kisnaxa:lɨkik mu mat'n'tinew = mD nnakɨná:wak màtahke:né:wa 'I stop them from fighting'.

The Distant Order

There is some indication of a third sort of type 2 PA verbs, characterized by the suffixes -Xt and *-ay, which we may tentatively call UNREAL. The evidence for this is from Blackfoot, Cree, and Micmac.

The unreal paradigms of Blackfoot are generally derived from the independent paradigms by the addition of suffix -opi (from *-pan, see sec.4.1), but -Vxt intervenes to separate it from a stem (Frantz 1971:30): nitsinaayiixtopi 'were I a chief', nitsitsayooyiixtopi 'if I hadn't eaten'. That is, -Vxt is found in the '1' and '2' endings (ibid, p.141). There is no trace of *-ay in Blackfoot - but nor is there in the subordinative [e.g., with reshaped -nnaani from *-nayena[:ni] '1p', see Proulx 1980b:table 2].

In Moose Cree, preterit endings in -htay are found in the first and second person endings (sg. and pl.). The terminal '3p' suffix with these endings is -ak, e.g., -a:htayak '1, 2-3p' (Ellis 1971:89).

In Plains Cree, Wolfart (1969:sec.5.322) says of the corresponding paradigms that there may be a tinge of irreality, e.g., S74-14 haw, kime:tawa:hta:naw! 'Oho, we were to have a contest!' [recall that -ay-e contracts to a:]. Another of his examples shows it used to refer to future time: T111p3 nika-papa:-papakwacihikohtayak 'they're going to cause excitement for me all over the place!'

Micmac has a future order, characterized by -te added to stems and themes [recall that *aye gives Mc e]. In the first person only, it stands in contrast with an attestive conjunct which also makes reference to the future: Mc liyetes 'I should go; I'll go; should I go?' but ke: eliyeyap 'I'll go willingly; let me go'. These are the only verbs in Micmac which reflect terminal *-aki '3p': ktukwi:tax 'they'll run' beside ktukwi:tew 'she'll run' [*e:wa contracts to Mc a, and *k gives Mc x after a].

The details of the paradigms in the three languages differ enough to generally make reconstruction of full endings impossible. Still, if we abstract out suppositive evidentials from some Micmac forms, they closely resemble the Cree. For example, Mc -tes '1' [*-Xtay-esan] matches C -htay '1', and Mc -tes'nu '12' [*-Xtay-e-san-naw] Cree -hta:naw '12'.

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NOTES

1. Languages, their abbreviations, and the sources from which they are generally cited are as follows: Abenaki-Ab-Laurent (1884), Day (1964); Arapaho-A-Goddard (1974), Saltzmann (1960); Blackfoot-B-Taylor (1969); Cheyenne-Ch-Glenmore and Leman (1984);Plains Cree-C-Bloomfield (ms.), Wolfart (1969, 1973); Swampy Cree-swC-Voorhis (1984a); Western Cree-fwC-Faries and Watkins (1938); Moose Cree-mC-Ellis (1971, 1983); Delaware-D-Goddard (1969)<uD=Unami, mD=Munsee>; Fox-F-Bloomfield (ms., 1927); Illinois-I-Leboulanger (1725); Kickapoo-K-Voorhis (1974); Loup-L-Mathevet, see Day (1975); Mahican-Mh-Schmick, see Mastay (1982); Malecite-Ma-Teeter (1971); Massachusett-Ms-Eliot (1666), Trumbull (1903); Menominee-M-Bloomfield (1975); Miami-Mi-Voegelin (1937-40); Micmac-Mc-Proulx (field notes), DeBlois and Metallic (1984); Narragansett-Nr-Trumbull (1903); Ojibwa-O-Bloomfield (1957); Central Ojibwa-bO-Barraga (1878); Western Ojibwa-NiO-Nichols (1979); Central and Eastern Ojibwa-RhO-Rhodes (1985); various dialects-pgO-Piggott and Grafstein (1983), Manitoba Ojibwa (Saulteaux)-wO-Voorhis (1984b); Passamaquoddy-Ps-LeSourd (1984); Penobscot-Pe-Voorhis (1979); Penobscot-SiPe-Siebert (1975); Potawatomi-Po-Hockett (1948); Proto-Algic-PAc-Proulx (1984, 1985); Proto-Algonquian-PA-Aubin (1975), Siebert (1975); Shawnee-Sh-Voegelin (1937-40); Virginia-V-Siebert (1975); Wiyot-W-Teeter (1964); Yurok-Y-Robins (1958), Proulx (1985b and field notes).

PA reconstructions found in Aubin (1975), Bloomfield (1946), and Siebert (1975) are respectively identified with the letters A, B, and S plus the item number. PA and Proto-Algic reconstructions are cited as "Algic #" plus the item number [#1-135 in Proulx (1984), #136-138 in Proulx (1984b), and #139-238 in Proulx (1985)]. Citations from my Yurok field notes are sometimes accompanied by the notebook number and page.

Emendations to forms cited are made without comment when they only involve orthography (or when V is written for a vowel). Other minor emendations are generally mentioned, e.g., 'reconstructed with *o for *we.' When the emendation is 'of the essence,' the full supporting evidence is cited.

Transcription generally follows that of Siebert (1975) for Algonquian, Teeter (1964b) for Wiyot, and Robins (1958) for Yurok. However, the following changes have been made: PA *ɨ is written for *θ, PA *s for *ç, PA *t for *x, PA *ʔ for *h between vowels, W ʔ for h before a consonant, W a for o, W ɨ for a, and Y ɨ for inverted r. For discussion of the changes, see Proulx (1984:168-169). Orthographic concessions to my word processor: s wedge is written as ŝ, c wedge as ĉ, and schwa as ɨ.

2. I think Bloomfield had this latter view in some abstract

sense, but he lacked the concrete details of Proto-Algic structure which have since been learned.

3. Perhaps inaccessible terminal suffixes were used as well in participles. They are *-a: '3', *-e: '0', *-Lnka: '3p', *-Lnle: '0p', *-Lnla: 'obv. sg.', and *-Lnha: 'obv. pl.' (see Proulx 1984:419). Note how they demonstrate that the longer endings are actually sequences.

4. Micmac has a structurally similar reshaping: the TI ending -nen '1p' [PA *-nayena] serves as model for the reshaping of the possessed noun ending PA *-na:n '1p' to Mc -nen, and the personal pronoun *ni:lawena to 4. ninen 'we (exc.)'.

5. Compare Wawenock -amɨt (Voorhis 1982:193) and negative Mc -'mɨt 'no one---her'.

6. Goddard (1969:sec. 5.5.33) proposes some more PA endings, but he cites no supporting data (other than Delaware) and most are wrong.

7. Attempts to elicit the other endings for Micmac were unsuccessful. Expected Micmac Forms presented to a Native speaker were taken for homophonous (and much more common) 'she doesn't X thee' [-uluk], and 'I don't X you' [-uluwox].

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A SUPPLEMENTARY BIBLIOGRAPHY OF LAKOTA LANGUAGE AND LINGUISTICS

(1887-1990)

Willem J. de Reuse

Abstract: This is an attempt at a comprehensive bibliography of materials relevant to the Lakota (Teton Dakota or Teton Sioux) language, with comments for most items. It covers the period 1887-1990, and is intended to supplement my earlier bibliography (One Hundred Years of Lakota Linguistics (1887-1987)), published in Kansas Working Papers in Linguistics, Vol. 12, 1987, pp. 13-42.

In Kansas Working Papers in Linguistics, Vol.12, 1987, pp. 13-42, I published an attempt at a comprehensive bibliography of Lakota language and linguistics, entitled One Hundred Years of Lakota Linguistics, and covering the period 1887-1987. Since the publication of this bibliography, quite a few other items written or published during the same period have come to my attention and the following bibliography is intended to supplement this work. A few items of the former bibliography that were given with mistakes or without annotations are repeated here in a corrected or updated form, or with annotations.

This bibliography has the same scope as the preceding one with the difference that I also included relevant items published or written during the years 1988 through 1990. The format of the bibliography, and the abbreviations used also remain the same, with the exception that this bibliography does not replace diacritics in entries by computer equivalents, but preserves the original ones.

Kansas Working Papers in Linguistics, 1990, Vol.15, No.2, pp.146-165.

I wish to thank Raymond A. Bucko, S.J., and John Koontz for lending me various items from their own collections, and for sending me lists of items, Violet Brown for lending materials to me, and the Lakota class of Gary Bevington at Native American Educational Services College, Chicago, for valuable discussions of teaching materials.

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Anon. 1927. Sursum Corda. St. Francis, South Dakota: St. Francis Mission. [n.s.; contains Catholic hymns in the Buechel orthography.]

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Anon. 1979. Olowan. Hymnal. South Dakota Catholic Congress. For Catholic Societies. Pine Ridge, South Dakota: Holy Rosary Mission. [Unpaginated; contains 266 numbered hymns or songs, most in English, some in Lakota (Buechel orthography), and a few in Latin. The inner side of the cover contains the Creed in Lakota, translated on the back cover. Numbers 85, 86, 92 are bilingual songs and prayers from the mass. The following are in English, with at least partial translations into Lakota: numbers 152, 154, 155, 156, 159, 160, 163, 185, 197, 199, 200, 218, and 232; the Lakota words of numbers 152, 154, 155, 156, 218, and 232 are credited to Ted Standing Elk. In the

following pairs of numbers, the first is a Lakota version, the second is the English: 17, 16; 18, 22; 42, 43; 50, 47; 98, 101. The hymn '0 come all you faithful' is given in Latin (24), two Lakota versions (25, 26) and English (27); the hymn '0 salutaris hostea' is given in Latin (94), Lakota (96), and English (97). The songs in Lakota only in numbers 1-5, 7-9, are adapted from traditional songs in Densmore (1918) (given in de Reuse (1987)); other songs in Lakota only are numbers 6, 18, 25, 91, 99, 100, 115, 133 (the Lakota Sioux National Anthem), 134, 137, 157, 160, 197, 229, 264.]

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is 82; there is also a pronunciation guide, a glossary (of English words), and an English index of 204 entries.]

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50, there is a discussion of the Lakota active case marking pattern.]

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Sioux religion, with articles by DeMallie, Jahner, Looking Horse, and Amiotte; a second part on Christianity and the Sioux, with articles by Deloria, Markowitz, Hilbert, and Poor Man, and a third part on traditional religion in the contemporary context, with articles by Medicine, Lewis, Spider, and Stead; suggestions for further reading; and a bibliography. All articles contain a few Lakota terms or phrases in the Buechel orthography; the bibliography most likely contains items giving Lakota religious or mythological terminology.]

Dooling, D. M., ed. 1984. The Sons of the Wind. Parabola Books. [n.s.; 136 pp.; Oglala Lakota mythology.]

Drysdale, Vera Louise. 1982. The Gift of the Sacred Pipe. Norman: University of Oklahoma Press. [n.s.; 106 pp.; illustrated edition of Black Elk's account.]

Erdoes, Richard, and Alfonso Ortiz, eds. 1984. American Indian Myths and Legends. New York: Pantheon Books. [Stories and myths in English; the texts on pages 5-8, 15-19, 47-52, 65-69, 69-72, 93-95, 129-136, 218-222, 225-227, 237-242, 247, 248-250, 254-255, 256-257, 258-260, 260-264, 267-269, 275-278, 337-339, 339-341, 342, 358-359, 372-374, 381-382, 395-396, 403, 404, 404-407, 432-434, 435-438, 462-463, 481-484, 458-486, 491-496, 496-499 were told by Lakotas from the Pine Ridge or from the Rosebud Reservations; most of them contain words, expressions or names of ceremonies or supernatural beings in Lakota.]

Faltz, Leonard M. 1977. Reflexivization: A Study in Universal Syntax. Unpublished University of California Berkeley Ph. D. dissertation. [Lakota data are given and discussed on pp. 4, 5, 21, 22, 26, 27, 64, 65, 71, 72, 193, 196, 197, 230, 231, 232, 252, 253, 258, 259, and 279.]

Faltz, Leonard M. 1978. On Indirect Objects in Universal Syntax. Papers from the Fourteenth Regional Meeting of the Chicago Linguistic Society, 76-87. Chicago. [Lakota data on p. 81; the Lakota informant was Archie Fire.]

Faltz, Leonard M. 1988. Quantifiers and the Nonuniversality of Noun Phrases. Paper read at the 63rd LSA Meeting, New Orleans, December, 1988. [Argues that Lakota quantifiers are not part of an NP.]

Faltz, Leonard M. 1989. Quantifying in internally referential relatives. Paper read at the Conference on Cross-Linguistic Quantification. LSA Linguistic Institute, University of Arizona, Tucson, July 22nd, 1989. [With Lakota data from Williamson.]

Frajzyngier, Zygmunt. 1985. On two hypotheses regarding stativity. Relational Typology, ed. by Frans Plank, 61-87. Berlin: Mouton. [On p. 73, there is a discussion of Lakota as a stative language.]

Goshe, Frederick. 1967. Sioux Indian Language. Published by the author, Palo Alto, Ca. [86 pp.; an essay on the language rather than a grammar or textbook, dealing with the author's views on English grammar almost as often as with Lakota grammar; a very personal account, sometimes perceptive, often puzzling, especially when it tries to demonstrate the superiority of Lakota grammar over that of English grammar; occasionally mixes Lakota and Dakota; the orthography is similar to Buechel's; contains a vocabulary (pp. 74-84), but no bibliography or information on data sources. This reference was already given in de Reuse (1987), the annotation there incorrectly assumes that it is the same work as Goshe (1964); actually Goshe (1967) is a revised and enlarged edition of the former work.]

Green, James, S.J. [n.d.] [Lakota Sentences.] Privately Printed [?]. [40 pp.; Father Green, Holy Rosary Mission, Pine Ridge, South Dakota, is a fluent speaker of Lakota. Contains a preface a preface and 500 Lakota sentences without English translation, grouped under subject headings, and often in a logical sequence. The Buechel orthography is used, except that in the first fourteen sentences, barred ‹n› is used for the postvocalic ‹n›, which indicates the nasalization of the preceding vowel.]

Hassrick, Royal B. 1964. The Sioux: Life and Customs of a Warrior Society.

Norman: University of Oklahoma Press. [379 pp.; this classic of anthropology contains many Lakota names for elements of social organization and religion, supernatural beings, and items of material culture.]

Hornby, Roger, and Richard Dana, Jr., eds. 1984. Mni Wakan & The Sioux. Justin. [n.s.; 280 pp.; a study of Sioux use of alcohol use, alcoholism, and alcoholism treatment.]

James, Eli. 1973. Belated News From Wounded Knee. Sociolinguistics Newsletter, Research Committee on Sociolinguistics of the International Linguistics Association 4(2). [n.s.]

James, Eli. 1986. Theoretical Approach in Phonology. Paper presented at the Seventh Annual Conference of the South Dakota Association for Bilingual-Bicultural Education, Rapid City, South Dakota, February 7-9, 1986. [n.s.; on Lakota phonology and orthography.]

James, Eli. 1987. Theoretical Syntax and Phonology for a Standard Writing System. Paper read at the Seventh Annual Native American Language Issues Conference, Saskatoon, Saskatchewan, May 20, 1987. [n.s.]

Jordan C. P. [1982.] Beginning Spoken Sioux (Lakota). Typewritten ms., Kyle, South Dakota. [Unpaginated, and apparently incomplete; 28 pp. of conversational lesson materials: short dialogues, grammatical notes, vocabulary lists, and texts and sentences for translation practice, including a final exam; the title is given on the page entitled Lesson 5; the first twenty pages have the header NAS60, presumably Native American Studies followed by the course number; in the Buechel orthography; there exist accompanying tapes; C. P. Jordan is a Lakota teacher at Little Wound School, Kyle, South Dakota.]

Jordan C. P. [n.d.] Lakota Dialogue. Typewritten ms, Kyle, South Dakota. [Unpaginated; 8 pp.; short dialogues and conversational idiomatic sentences; a final page of grammatical notes; in the Buechel orthography; C. P. Jordan is

a Lakota teacher at Little Wound School, Kyle, South Dakota.]

Jordan C. P. [n.d.] Lakota Vocabulary. Typewritten ms, Kyle, South Dakota. [Unpaginated; 10 pp.; an English-Lakota vocabulary, classified by subject; in the Buechel orthography; C. P. Jordan is a Lakota teacher at Little Wound School, Kyle, South Dakota.]

Kaisse, Ellen M., and Patricia A. Shaw. 1985. On the theory of Lexical Phonology. Phonology Yearbook 2:1-30, ed. by Colin J. Ewen and John Anderson. Cambridge: Cambridge University Press. [Brief discussion of the interaction of Lakota palatalization and reduplication on pp. 19-20.]

Keith, Sidney. [n.d.] Sioux Dictionary. Sioux Nation Arts Council. Eagle Butte, South Dakota: Abel Printing Service. [ns.; English to Lakota.]

Kenstowicz, Michael, and Charles Kisseberth. 1977. Topics in Phonological Theory. New York: Academic Press. [A brief discussion of Lakota palatalization on pp. 97-80.]

Kiparsky, Paul. 1986. The Phonology of Reduplication. Unpublished ms., Stanford University. [n.s.; discusses Lakota reduplication.]

Koontz, John E. 1981. Reconstruction of the Proto-Siouan person markers. Paper read at the First Siouan and Caddoan Linguistics Conference, Boulder, CO, June 17, 1981. [n.s.]

Koontz, John E. 1983. Siouan syncopating *r-Stems. (Proceedings of the Second Siouan and Caddoan Languages Conference, 1982, ed. by Mary Marino.) Na'pao 13.11-23. Saskatoon: Department of Anthropology and Archaeology, University of Saskatchewan. [Comparative; some Lakota data.]

Koontz, John E. 1983a. A morphologically based reassessment of the Proto-Mississippi Valley stops and sonorants. Paper read at the Third Siouan and Caddoan Linguistics Conference, Rapid City, South Dakota, May 21, 1983.

[Comparative; some Lakota data.]

Koontz, John E. 1984. Accounting for Dakota noun stem allomorphy with fused deictic particles. Paper read at the Eighty-third Annual Meeting of the American Anthropological Association, Denver, CO, November 17, 1984. [n.s.]

Koontz, John E. 1985. The typology of Mississippi Valley Siouan pronouns. Paper read at the Eighty-fourth Annual Meeting of the American Anthropological Association, Washington, D.C., December 7, 1985. [n.s.]

Lakota Translation Project. 1985. Jesus Tunpi. Rapid City, South Dakota: Lakota Translation Project. [Jesus is born. Unpaginated pamphlet, 7 pp.; contains translations in Lakota of Matthew 1:18-23; Luke 2:1-20; and Matthew 2:1-21; in the Buechel orthography, except that it uses a superscript dot to indicate aspiration of stops.]

LaPointe, James. 1976. Legends of the Lakota. San Francisco: The Indian Historian Press. [Text in English, with a few Lakota expressions and names in the Buechel orthography.]

Lewis, Thomas H. 1990. The Medicine Men. Oglala Sioux Ceremony and Healing. Lincoln: University of Nebraska Press. [n.s.; contains Lakota religious terminology.]

Mathieu, David J., Bertha Chasing Hawk, and Elgin Badwound. 1978. Lakota Language I. Spearfish, South Dakota: Center of Indian Studies, Black Hills State College. [62 pp.; eight introductory conversational lessons, for one semester classes, in the Buechel orthography. The format and text is inspired by Flute, Rebecca et al. 1978. Dakota Iapi. Wowapi Tokaheya. (Dakota Language. Book One.) Dakota Language Program, Department of American Indian Studies, University of Minnesota, Minneapolis. There is a set of 15 cassette tapes accompanying this and Lakota Language II (see below).]

Mathieu, David J., Bertha Chasing Hawk, and Elgin Badwound. 1978a. Lakota Language II. Spearfish, South Dakota: Center of Indian Studies, Black Hills State College. [56 pp.; eight introductory conversational lessons, continuing the preceding work for a second semester course, in the Buechel orthography. Contains a bibliography. There is a set of 15 cassette tapes accompanying this and Lakota Language I (see above).]

Medicine, Beatrice. 1987. Review of: Powers, Marla N. 1986. Oglala Women: Myth, Ritual, and Reality. American Anthropologist 89(4):975-76.

Mithun, Marianne. 1986. When Zero Isn't There. Proceedings of the Berkeley Linguistics Society 12.195-211. Berkeley. [Lakota data on pp. 201-202; argues that there is no 3rd person singular zero pronoun in Lakota; the informant is Stanley Redbird, of Rosebud, South Dakota.]

Mithun, Marianne. 1989. The Grammaticization of Coordination. Clause Combining in Grammar and Discourse, Typological studies in Language 18, ed. by John Haiman and Sandra Thompson, 331-359. Amsterdam: John Benjamins. [n.s.]

Mithun, Marianne. 1989a. Reconstructing the Unidentified. Paper read at the Ninth Meeting of the International Society for Historical Linguistics, Rutgers University, New Brunswick, N.J., August 1989. [Handout, p. 5, gives Lakota *wa-* 'unidentified patient' as a potential remote cognate of similar Iroquoian and Caddoan forms.]

Mithun, Marianne. 1989b. External triggers and internal guidance in syntactic development: coordinating conjunction. Paper read at the Ninth Meeting of the International Society for Historical Linguistics, Rutgers University, New Brunswick, N.J., August 1989. [37 pp.; mostly on Iroquoian, but gives Lakota *ƚhó* 'too' (p. 23) as a potential remote cognate of similar Iroquoian and Caddoan forms; the Lakota informant is Stanley Redbird, of Rosebud, South Dakota.]

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Mousseaux, Ollie, and Ione Gels. 1980. The Buffalo Go Up the River. English and Lakota. St. Francis, South Dakota: St. Francis Indian School. [n.s.; bilingual reader for children.]

Mousseaux, Ollie, and Ione Gels. 1980a. Mahel Tankal Puzosla. St. Francis, South Dakota: St. Francis Indian School. [n.s.; bilingual reader for children.]

Mousseaux, Ollie, and Ione Gels. 1980b. The People and the Pilgrims. English and Lakota. St. Francis, South Dakota: St. Francis Indian School. [n.s.; bilingual reader for children.]

Mousseaux, Ollie, and Ione Gels. 1980c. The Red-Winged Bird and the Lost Children. St. Francis, South Dakota: St. Francis Indian School. [n.s.; bilingual reader for children.]

Mousseaux, Ollie, and Mary Morgan. 1980. Makiizita Onáya Cápa Otí. St. Francis, South Dakota: St. Francis Indian School. [n.s.; bilingual reader for children.]

Munro, Pamela. 1988. Diminutive Syntax. In Honor of Mary Haas. From the Haas Festival Conference on Native American Linguistics, ed. by William Shipley, 539-555. Berlin: Mouton de Gruyter. [A discussion of the Lakota diminutive suffix and enclitic *-ke* on pp. 539-541.]

Munro, Pamela. [date?] [Lakota Lessons.] Manuscript, Department of Linguistics, University of California, Los Angeles. [n.s.]

Neihardt, John G. 1932. Black Elk Speaks. New York: Simon and Schuster. [238 pp.; contains a few Lakota words and expressions.]

One Bull. [n.d.] One Bull's Narrative: Sitting Bull's History from the Custer fight until his death (1876-1890). Manuscript. [n.s.; Lakota text in possession of Stanley Vestal, given to him by the author (Vestal 1957:325).]

Patel, P. G. 1986. Review of: Voyat, Gilbert. 1983. Cognitive Development

Among Sioux Children. The Canadian Journal of Linguistics/La Revue Canadienne de Linguistique 31(3):292-293. [The following quotation from this review is intriguing from a linguistic point of view: "According to Voyat, Lakhota has "no verbal form defining a past or future tense; the context in which the verb appears connotes the tense." (42). Since spatial operations are related to the ability to differentiate coordinates in time ("to make statements about a past and future"), Voyat argued, Lakhota children might find it difficult to deal with spatial organization."]

Patterson, Trudi. 1988. Some Morphological and Phonological Interactions in Lakhota: Palatalization and Ablaut. Paper read at the Eighth Annual Conference on Siouan and Caddoan Languages, Billings, Montana, June 18th, 1988. [n.s.]

Powers, Maria N. 1986. Oglala Women: Myth, Ritual, and Reality. Women in Culture and Society. Chicago: University of Chicago Press. [n.s.; 238 pp.; some Lakota terms.]

Powers, William K. 1986. Sacred Language: The Nature of Supernatural Discourse in Lakota. Norman: University of Oklahoma Press. [n.s., already in de Reuse (1987), but an additional annotation is given here; contains texts of 26 Lakota songs, and discussions of musical and ritual terminology.]

Pustet, Regina. 1985. Possession im Dakota. Arbeitspapier Nr. 47, Institut für Sprachwissenschaft der Universität zu Köln. Cologne. [n.s.; probably also discusses Lakota.]

Rankin, Robert L. 1988. Quapaw; genetic and areal affiliations. In Honor of Mary Haas. From the Haas Festival Conference on Native American Linguistics, ed. by William Shipley, 629-650. Berlin: Mouton de Gruyter. [Comparative; some Lakota data on pp. 638-639.]

Rood, David S. 1972. Experiences with teaching Lakhota. Paper read at the meeting of the Rocky Mountain Modern Language Association, Tucson,

Arizona. [n.s.]

Rood, David S. 1983. A preliminary consideration of Proto-Siouan ablaut. (Proceedings of the Second Siouan and Caddoan Languages Conference, 1982, ed. by Mary Marino.) Na'pao 13.24-28. Saskatoon: Department of Anthropology and Archaeology, University of Saskatchewan. [Comparative; some Lakota data.]

Rosen, Carol G. 1984. The interface between semantic roles and initial grammatical relations. Studies in Relational Grammar 2, ed. by David Perlmutter and Carol G. Rosen. Chicago: University of Chicago Press. [n.s., in the Relational Grammar framework; about the differences between unergative and unaccusative clauses in Lakota.]

Sandoz, Mari. 1942. Crazy Horse, The Strange man of the Oglalas. Lincoln: University of Nebraska Press. [239 pp.; a biography; contains a few Lakota terms.]

Saronne, Edgardo T. 1986. A hypothesis for a phonological outline of Lakota Teton Sioux. Studi italiani di linguistica teorica e applicata 14(1-3).309-329. [A phonemic and phonetic study, based on work at the University of Colorado with Elizabeth N. Garrett, originally from Rosebud, South Dakota. The spelling is somewhat unusual; it distinguishes [Cx] from [Ch], has an apostrophe for stress, and ‹?› for the glottal stop.]

Saronne, Edgardo T. 1986a. Testi in una lingua degli indiani Sioux, I. Lingue del mondo: Prima Rivista di Cultura Linguistica 51(1-2).22-27. [n.s.]

Saronne, Edgardo T. 1987. Il tempo e gli eventi nella concezione degli Indiani Sioux. Studi Orientali e Linguistici 3.437-451. Bologna. [n.s.]

Shaw, Patricia A. 1981. Nasal assimilation in Dakota: A problem for comparative Dakota dialectology. Paper read at the First Siouan Languages Conference, Boulder, CO, June 16-18, 1981. [n.s.]

Shaw, Patricia A. 1983. Lexical Phonology and the Strict Cycle in Dakota. Unpublished ms., University of British Columbia. [n.s., this is probably the same as Shaw's, The Strict Cycle Condition in Dakota (1983), given in de Reuse (1987).]

Shaw, Patricia A. 1984. Syllable Structure Paradoxes in Dakota. Unpublished ms., presented at the Canadian Linguistic Association, Guelph. [n.s.]

Shaw, Patricia A. 1985. Modularization and substantive constraints in Dakota Lexical Phonology. Phonology Yearbook 2:173-202, ed. by Colin J. Ewen and John Anderson. Cambridge: Cambridge University Press. [Most of the data are from Waxpétuwą Santee (Dakota) and from Stoney.]

Shaw, Patricia A. 1989. The Complex Status of Complex Segments in Dakota. Theoretical Perspectives on Native American Languages, ed. by Donna B. Gerdts and Karin Michelson, 3-37. Albany: State University of New York Press. [The published version of the manuscript given in de Reuse (1987) as Shaw [1987]].

Sietsema, Brian M. 1988. Reduplications in Dakota. Papers of the 24th Annual Regional Meeting of the Chicago Linguistic Society, Part One: The General Session. Chicago. [Argues that there are two modes of reduplication in Lakota.]

Simms, Thomas E., and Ben Black Bear, Jr. 1987. Otokahekagani. (First Beginnings) Sioux Creation Story (Book I). Chamberlain, South Dakota: Tipi Press. [30 pp.; a bilingual childrens' book with large color illustrations; written in an unusual variant of the Buechel orthography that uses superscript dots for aspiration of stops, ‹ġ› for /ɣ/, ‹c› for /č/ and /č^{h}/, ‹ṡ› for /š/, and superscript macrons to mark the non-aspiration of stops; the transriptions and illustrations are by Thomas E. Simms, the Lakota translations are by Ben Black Bear, Jr.]

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Simons, B. 1984. Sprachliche Structuren der Lokalität im Dakota. Arbeitspapier Nr. 46, Institut für Sprachwissenschaft der Universität zu Köln. Cologne. [n.s.; probably also discusses Lakota.]

Stolzman, William, S.J. 1986. How to take part in Lakota Ceremonies. Distributed by: Sioux Museum, St. Francis Mission, St. Francis, South Dakota, and Heritage Center, Red Cloud Indian School, Pine Ridge, South Dakota. [72 p.; formulas and words in the Buechel orthography.]

Stolzman, William, S.J. 1986a. The Pipe and Christ. St. Joseph's Indian School, Chamberlain, South Dakota. [222 pp.; formulas and words in the Buechel orthography; pp. 221-222 is an Appendix Pronunciation Key to Lakota Words, stating that ȡ is pronounced as d in taku, mitakuye, mitakuyepi, toka, tokeca, and the ending takiya, and that ‹k› is pronounced like hard g in kin, tunkasila, hunkayapi, wakiyan, taku, takuyapi, mitakuyapi, canku, and itokagatakiya.]

Tait, Mary. 1988. Agreement and Null Anaphora in Lakhota. Paper read at the 63rd Annual Meeting of the Linguistic Society of America, New Orleans. [n.s.; modification of Government and Binding theory.]

Taylor, Allan R. 1973. Lakota Language Pronunciation. Boulder, Colorado: University of Colorado Press. [n.s.; this is a spurious reference, found only in the bibliography of Mathieu, David J., Bertha Chasing Hawk, and Elgin Badwound. 1978a. Lakota Language II. (see above); the intended reference is most likely to be Taylor (1975), given in de Reuse (1987).]

Taylor, Allan R. 1976. Note concerning Lakota Sioux terms for White and Negro. Plains Anthropologist 21(71).63-66.

Taylor, Allan R. 1983. Old vocabularies and linguistic research: The case of Assiniboine. (Proceedings of the Second Siouan and Caddoan Languages Conference, 1982, ed. by Mary Marino.) Na'pao 13.31-44. Saskatoon: Department of Anthropology and Archaeology, University of Saskatchewan.

[Assiniboine data compared with Lakota data.]

Theisz, R. D. 1975. Buckskin Tokens. Mission, South Dakota: Sinte Gleska College Press. [n.s.; 75 pp.; contemporary oral narratives of the Rosebud Lakota.]

Tunnock, Brenda K. 1988. An analysis of the structure of relative clauses in Lakhota. Unpublished paper written for de Reuse's class in Linguistic Field Techniques, Winter Quarter 1988, Department of Linguistics, University of Chicago. [16 pp.]

Van Valin, Robert D. Jr. 1987. The Role of Government in the Grammar of Head-Marking Languages. International Journal of American Linguistics 53.371-397. [A criticism of GB theory, mostly using Lakota data; a slightly revised version of the paper by the same name published in Davis Working Papers in Linguistics 2.119-29, included in de Reuse (1987:40.)]

Van Valin, Robert D. Jr. 1988. A Functional Account of Extraction Restrictions in a Language without Extraction. Paper read at the Eighth Annual Conference on Siouan and Caddoan Languages, Billings, Montana, June 18th, 1988. [n.s.; on Lakota.]

Vestal, Stanley. 1934. The Works of Sitting Bull, Real and Imaginary. Southwest Review 19(3). [n.s.; includes a collection a songs by Sitting Bull, with original texts and translations. This article was reprinted in Vestal, Stanley. 1938. Professional Writing. New York.]

Vestal, Stanley. 1957. Sitting Bull, Champion of the Sioux. Norman: University of Oklahoma Press. [Original edition is from 1932; a new and expanded biography, containing some proper names, terms, and expressions in Lakota; facing p. 283, there is a photograph of Major McLaughlin's order for Sitting Bull's arrest, written, according to Vestal, in the Santee Sioux (Dakota) dialect, but it appears to be Lakota, mixed with a few Santee words. There is a sentence uttered by Sitting Bull on p. 300.]

Voyat, Gilbert. 1983. Cognitive Development Among Sioux Children. New York: Plenum Press. [n.s., pp. x + 161.; cf. note to Patel's (1986) review in this bibliography.]

Walker, James R. 1979. The Sun Dance and Other Ceremonies of the Oglala Division of the Teton Dakota. New York: AMS Press. [n.s.; 221 pp.; reprint of the original edition (Walker 1917), given in de Reuse (1987).]

White Bird. 1989. White Bird. Paris: Balland. [In French; the autobiography of a young Lakota man who resided in France; contains a few Lakota words and songs.]

White Bull. [n.d.] Records of Chief White Bull. Manuscript. [n.s.; illustrated, war, personal, and family history; Lakota texts in possession of Stanley Vestal, given to him by the author (Vestal 1957:325).]

White Bull. [n.d.] White Bull's History of Sitting Bull's Life (1864- 1876). Manuscript. [n.s.; Lakota text in possession of Stanley Vestal, given to him by the author (Vestal 1957:325).]

Williamson, Janis S. 1987. An Indefiniteness Restriction for Relative Clauses in Lakhota. The Representation of (In)definiteness, ed. by Eric Reuland and Alice ter Meulen, 168-190. Cambridge, Mass.: MIT Press. [The Lakota informants named were Shirley Apple Murphy and Charlotte Standing Buffalo Ortiz; this is the published version of Williamson (1984a), given in de Reuse 1987.]

Workers of the South Dakota Writers' Project. 1987. Legends of the Mighty Sioux. Fenske Printing. [n.s.; 158 pp.; a compilation of forty-five legends of the Lakota and Dakota.]

Zeilinger, Ron. 1986. Sacred Ground: Reflections on Lakota Spirituality and the Gospel. Chamberlain, South Dakota: Tipi Press. [n.s.; 152 pp.]

Ziolkowski, Michael. 1988. Semantic Constraints on the Combination of Adverbs with Verbs of "Locomotion" in Lakhota. Unpublished paper written for de Reuse's class in Linguistic Field Techniques, Winter Quarter 1988, Department of Linguistics, University of Chicago. [6 pp.]